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ABSTRACT

This project intended to determine whether a middle-level employment base existed in manufacturing and service industries in South Australia and to examine current trends and future directions of middle-level (paraprofessional) vocational training. The study used the following methods: literature review; labor market analysis; surveys of accounting (n=171), mechanical engineering (n=139), and hospitality management (n=107) industries; graduate surveys (169 accounting, 128 engineering, and 54 hospitality graduate respondents); case studies; and discussions with unions and industry representatives. Conclusions concerning the future of middle-level training included the following: (1) a significant employment base exists in Australia for persons undertaking middle-level training; (2) employers in industry valued on-the-job experience rather than academic qualifications when recruiting or promoting staff; (3) middle-level training programs need to promote the idea of greater female participation, especially in management; (4) award restructuring may further consolidate the employment base and increase opportunities for credit for prior learning; and (5) middle-level training needs to be marketed more effectively to the business community. (Appendices contain the following: courses reviewed, definitions of target occupations, survey methodology, industry and graduate questionnaires, case study questions, list of contacts, and 64 references.) (CML)

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Occupational Outlets for Middle Level Training

PAUL MILLS &
JANINE CESNICH

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Occupational Outlets for Middle Level Training

PAUL MILLS &
JANINE CESNICH

What is the
Future of
Middle Level Training?

NCVER

Adelaide 1992

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- those organisations and SADETAFE graduates who participated in the industry surveys, graduate surveys and graduate case studies which formed an important element of this project.

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Executive Summary

1. Introduction

- *Background*

This study has been undertaken by the National Centre for Vocational Education Research (formerly the TAFE National Centre for Research and Development) on behalf of the South Australian Department of Employment and Technical and Further Education (SADETAFE).

There have been various studies of aspects of TAFE middle level training in the past in Australia. However, little attention has been paid to the middle level *employment base* available to middle-level graduates and the extent to which their training is 'well targeted' in terms of meeting industry's needs for suitably trained staff, and in terms of proving useful to graduates in terms of gaining employment in occupations where their vocational training is relevant. A special problem is that a level of training derived from the occupation 'engineering associate' has been applied to white collar and service industries without real labour market testing.

Middle level employment (also termed paraprofessional level) may be defined as the occupational level between the technician or post-trade level and the professional level. The Australian Standard Classification of Occupations (ASCO) provides the following definition of a Paraprofessional's duties:

> *Paraprofessionals perform complex technical duties requiring the understanding of a body of theoretical knowledge and significant practical skills.*
> *Occupations in this major group have level of skill commensurate with a 2-3 year certificate or associate diploma. Most Paraprofessionals receive some on-the-job training in addition to formal education.*
> *Duties performed by Paraprofessionals include conducting laboratory tests; operating and maintaining complex equipment; operating and supporting the operation of ships; providing skilled nursing care; enforcing the law; and inspecting establishments and sites to ensure conformity to government and industry standards. These duties are often performed in support of professionals.*

To some degree, the current project is an extension of research previously undertaken by Hugh Guthrie and Philip Loveder from the TAFE National Centre for Research and Development in 1989. In their report, entitled *Approaches to multiple entry and exit points for the Associate Diplomas*, Guthrie and Loveder (1990) examined what approaches were being taken, or could be adopted, to provide appropriate multiple entry and exit points for the Associate Diplomas and Diplomas offered by the South Australian Department of Employment and Technical and Further Education.[1]

This project extends this research to include:

- broad analysis of recent trends in enrolments in all TAFE Associate Diploma/Diploma courses offered in South Australia and nationally;
- examining the broad labour market available to persons undertaking Associate Diplomas or Diplomas through TAFE in South Australia and nationally;
- analysis of the acceptance by employers of this level of vocational training by examining past trends and prospective trends in the employment base in certain manufacturing and service

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[1] Guthrie, H., and Loveder, P. (1990) *Approaches to multiple entry and exit points for the Associate Diplomas.*

industries for Associate Diploma/Diploma holders;

- analysis of the labour market experiences of graduates from the targeted South Australian Associate Diploma/Diploma courses;
- reviewing the effects of recent changes in the workplace environment, especially as a result of award restructuring, on the employment base available to persons with middle level TAFE vocational training.

Aims of the Project

This project has four main aims:

- to determine whether an autonomous[2] middle level employment base (ie. the level for which Associate Diploma and Diploma courses provide vocational training)[3] exists in selected manufacturing and service industries in South Australia;
- to identify recent trends in this employment base in South Australia and develop projections for the future;
- to examine related trends in middle level occupations and the implications for middle level training (e.g. the effects of award restructuring); and
- to discuss the future of middle level training and review the administration of middle level training.

Occupations where a detailed analysis of recent employment trends and the future outlook has been provided include those occupations broadly covered by the following three South Australian Department of Employment and Technical and Further Education courses:

- the Associate Diploma in Accounting;
- the Associate Diploma in Mechanical Engineering; and
- the Diploma in Hospitality Management.

The aim of these three courses are detailed in Appendix 1 to this report.

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[2] What does the term autonomous mean in this context? This question has provoked considerable discussion among members of the Consultative Committee oversighting this project and other interested parties. The Macquarie Dictionary provides the following definition "1. Self-governing; independent; subject to its own laws only; pertaining to an autonomy. 2. Independent; self-contained; self sufficient; self governing. 3. Philos. containing its own guiding principles. 4. Biol. existing as an independent organisation".

For the purposes of this paper, an autonomous employment base is defined as an independent, separately identifiable employment base which exists in its own right because there is a sustained demand in the economy for the skills and services of persons working in a particular occupation.

[3] As a general guide, a qualification meeting the standard of Associate Diploma requires a minimum of two years of full-time study or four years of part-time study, while a Diploma requires three years full-time study or six years of part-time study. For a more detailed definition see David Rumsey, of J.P. Young and Associates for the Vocational Education, Employment and Training Advisory Committee, (1991) *Issues Paper, The National Alignment of Vocational Education and Training Credentials to The Australian Standards Framework.*

- *Scope of this Study*

This study includes analysis of:

- The extent to which middle level vocational training is recognised in the Australian Standard Classification of Occupations (ASCO).

- The extent to which middle level vocational training is recognised in existing industrial awards which relate to the occupations for which those Associate Diploma/Diploma courses which are the focus of this study provide vocational training.

- Broad trends in enrolments in Associate Diploma/Diploma courses in recent years, both in South Australia and at the national level (and related changes in educational attainment), together with analysis of recent trends in employment in related occupations (ie. ASCO Major Group 3, Paraprofessionals).

- More specific analysis of trends in enrolments in the three South Australian DETAFE Associate Diploma/Diploma courses, which are the focus of discussion in this study, and analysis of recent and likely trends in employment in related occupations. The aim of these more detailed analyses is to concentrate discussion on longer term structural economic factors which will influence the main industries in which graduates from these three focus courses are likely to be employed over the next 3-5 years, rather than short-term cyclical economic factors. Structural economic change occurs as a result of more fundamental, longer term, irreversible and deterministic factors such as:

    - technological change resulting in a rapid and increasing rate of innovation in communications and computing technology, based on micro-electronics;

    - changes in consumer preferences and tastes favouring relatively more consumption of, for example, restaurant services and relatively less consumption of food products consumed in the house;

    - government policy decisions to reduce tariffs on products like footwear which confer a cost advantage to low-wage countries such as China.

    (Cyclical economic change, by contrast, occurs as a result of short-term changes in the business cycle reflecting factors like seasonal influences or government policy intended to expand or contract economic activity. For example, the 1990/91 economic downturn has occurred as a result of cyclical factors, particularly through changes in the Commonwealth Government's macro-economic policies).[4]

- Analysis of the perceptions of employers of TAFE graduates concerning the existence of a discrete, autonomous employment base in South Australia for persons holding the South Australian DETAFE Associate Diploma/Diplomas in Accounting, Mechanical Engineering and Hospitality Management.

- Analysis of the likely impact of award restructuring on the existing employment base for persons who have completed these middle level DETAFE courses.

- Discussion of gender issues arising from the preceding analysis (eg. existence of career opportunities for women in occupations traditionally dominated by men).

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[4] Labour Market Analyses Branch, SADETAFE (1991) *TAFE Labour Market Issues*, Issue 4 *'Emergence of the Post Industrial Economy - Overview'*, Vol.1, No. 4.

▪ *Research Methodologies Used in This Study*

This project has involved a variety of social research methodologies. These methodologies include:

- *A survey of existing literature of relevance to the project.* The literature survey had two foci: first, the development of an information base concerning the recognition of middle level training in relevant industrial awards; second, development of a qualitative and quantitative data base regarding trends in employment in middle level occupations.

- *Labour market analysis.* The approach utilised in this study is described in detail in TAFE Labour Market Issues, Vol. 1, No. 9 *Labour Market Forecasting Methods for TAFE Program Planners.* (This is the ninth in a series of occasional monographs informing South Australian DETAFE staff about broad labour market issues, which is produced by the Labour Market Analysis Branch in the South Australian Department of Employment and Technical and Further Education). In essence, the approach involves detailed industry-based assessments of training needs, as opposed to mechanical econometric modelling. It involved assessment of future trends in occupational supply and demand based on an appreciation of likely long term structural trends in those industries where persons working in target occupations are generally employed.

- *Industry surveys.* The project has involved conducting three surveys of the main industries in which graduates from the three target South Australian DETAFE courses (ie. the Associate Diplomas in Accounting and Mechanical Engineering and the Diploma in Hospitality Management) are largely employed. The purpose of the industry surveys was to examine employers' understanding of the concept of middle level training and their acknowledgment of the relevance of middle level training in recruiting new staff and promoting staff from within their organisations.

- *Graduate surveys.* The project has included conducting surveys of graduates from the three target South Australian DETAFE courses, as a means of establishing the labour market outcomes arising from graduates' vocational training (eg. whether graduates are employed or unemployed, and if employed, whether their employment is related to their vocational training).

- *Case studies.* Case studies have been undertaken of persons who have completed the Associate Diploma in Accounting, the Associate Diploma in Mechanical Engineering, the Diploma in Hospitality Management, offered by the South Australian Department of Technical and Further Education and have had longer term exposure to the labour market. The purpose of the case studies was to examine graduates' motivations for undertaking their course of study and their perceptions of labour market opportunities available to them from completion of their Associate Diploma/Diploma course, and the impact undertaking their middle level training has had on these graduates longer term career development.

- *Discussions with relevant industry bodies and unions.* The aims of these discussions are, firstly to test the level of acceptance by industry of the concept of middle level training, especially post award restructuring, and secondly, to gain the views of industry and union representatives concerning likely future employment trends in selected manufacturing and service industries which form the focus of this study.

▪ *Data Sources and Limitations*

Data contained in this report comes from a wide variety of sources. The main source of *recent* labour market data used in this report is the Australian Bureau of Statistics (ABS) Monthly Labour Force Survey. The Labour Force Survey estimates are based on a sample survey rather than a full count of the State and national population and are therefore subject to sampling error which may be relatively high in regard to State data.

Data from the Census of Populations and Housing, which is also produced by the ABS, has also been used in the study. However, the Census is only conducted on a five-yearly basis and there are long lead times between data collection and data availability. The most recent census from which occupational and industry data is available in respect to South Australia was that for 1986, data from which is now somewhat dated.

ABS occupational data is classified according to the Australian Standard Classification of Occupations (ASCO). The ASCO structure encompasses four distinct levels of occupation aggregation. At the base level of the structure there are 1,079 *individual occupations* covering all jobs in the labour force. This is referred to as the 6-digit ASCO level (eg. the occupation of trained accountant has the 6-digit code of 270101). At the second level of aggregation there are 282 *unit groups*, each containing a defined set of occupations. This is known as the 4-digit ASCO level. The occupation of accountants falls within the unit group 2701 Accountants. The third level comprises 52 *minor groups*, each containing a defined set of unit groups. This is known as the 2-digit ASCO level (the unit group of accountants falls within the minor group 27 Business Professionals). The fourth and highest level of the structure identifies 8 *major groups* in terms of their constituent minor groups. This level is known as 1-digit ASCO (the major group). Business Professionals fall within ASCO Major Group 2, Professionals.

Unfortunately, occupational data from both the Labour Force Survey and the most recent Census of Population and Housing does not include statistics in employment to the 'occupation' (6-digit) level. *Hence, the most detailed data available is at the unit group or 4-digit level.*

Data on employment by industry is also available from the ABS. Industries are classified using the Australian Standard Industrial Classification (ASIC). Under this system, industries are classified into broad Divisions, Subdivisions, Groups and Classes (the most detailed classification).

■ *Project Management*

As is the National Centre for Vocational Education Research's usual practice, the project has been oversighted by a Consultative Committee. Members of the Consultative committee include:

- C. (Max) Adlam, Metal Engineering Worker's Union;
- David Eitzen and Fiona Ritchie, National Institute of Accountants;
- Peter King, Department of Employment and Technical and Further Education;
- Shelley Rogers, initially representing United Trades and Labour Council of South Australia and more recently, Parkskill;
- Robin Ryan, Department of Employment and Technical and Further Education;
- Michael Cheers, Hotels and Hospitality Industry Association.

as well as members of the National Centre for Vocational Education Research team.

2. Community Acceptance of Middle Level Training

As previously stated, the initial aim of this project was to examine the broad occupational outcomes arising from middle level training in official occupational nomenclature and relevant industrial awards and the more specific occupational outlets arising from undertaking the three target SADETAFE Associate Diploma/Diploma courses which form the focus of this analysis.

The extent to which Associate Diplomas/Diplomas are recognised in official occupational nomenclature represents an important test for the existence of an independent, autonomous employment base for Associate Diploma/Diploma holders. *However the existing ASCO structure does not provide a consistent occupational outlet for Associate Diploma/Diploma holders, although ASCO suggests the paraprofessional classification is the most likely occupational outlet from undertaking middle level vocational training.* The Australian Standard Classification of Occupational (ASCO) suggests employment in the paraprofessional major group is the most likely occupational outcome from undertaking middle level training through TAFE. It is possible however, to become a paraprofessional without undertaking middle level training. Undertaking middle level training also commonly results in occupational outcomes outside the paraprofessional major group in ASCO.

In respect to those occupations for which vocational training is provided by the three target SADETAFE courses:

- Likely occupational outlets arising from undertaking the Associate Diploma in Mechanical Engineering are well defined in ASCO with the occupation of Mechanical Engineering Associate (ASCO Unit Group 3205) seeming the most likely occupational outlet.
- Likely occupational outlets arising from undertaking the SADETAFE Diploma in Hospitality Management are also well defined in ASCO with the occupations of Restaurant and Catering Managers (ASCO Unit Group 1503) and Accommodation and Tavern Managing Supervisors (ASCO Unit Group 1505) seeming likely to be the main occupational outlets from this course.
- Occupational outlets arising from undertaking the SADETAFE Associate Diploma in Accounting are ill defined in ASCO. Occupational outlets from this course can be as diverse as Accountants (ASCO Unit Group 2701, i.e. professional) to Accounting Clerks (ASCO Unit Group 5301, a clerical occupation).

Recognition of these target occupational outlets under industrial awards varied significantly *prior to award restructuring*. Accountants, for example, who work in *public practice* usually do not work under industrial awards. Hospitality management occupations, while referred to in certain hospitality industry awards, were not defined in terms of skill and training requirements. (In any case, given the high proportions of small businesses in the hospitality industry, frequently managed by their owners, award coverage of management employees in this industry is limited.) Mechanical engineering occupations, while arguably better defined than the occupations referred to immediately above in industrial awards prior to award restructuring, were not defined in terms of skill levels and training requirements.

Given the significant proportion of accountants employed in public practice, who as noted above, are usually not employed under industrial awards, it seems likely that award restructuring has not resulted in better defining these accounting occupations or the skills and training needed to work in these occupations. However, award restructuring in industry, government and commerce has offset this to some degree, with the Associate Diploma in Accounting, for example, now being recognised by the South Australian Government for classification into accounting positions (although award restructuring has been slow in respect to State Clerks awards). Subsequent to award restructuring the roles of mechanical engineering associates are closely defined in relevant industrial awards (in terms of skill and training requirements). Hospitality awards now also include, for most levels, a detailed description of required skills and training (although the role of management personnel had yet to be addressed under hospitality management Federal Awards at the time of writing).

In summary, in respect to those occupations for which vocational training is provided by the target SADETAFE courses the process of award restructuring, with its emphasis on skills, competencies and training, has tended to consolidate the employment base for mechanical engineering associates and has the potential, once award restructuring is extended to hospitality management awards, to have a similar influence on the hospitality industries. Award restructuring appears likely, however to have only a limited impact on the employment base available to accountants in general practice and is yet to effect the employment base available to accounts clerks, as award restructuring has been relatively slow in respect to State Clerks Awards under which most accounting clerks are employed.

Data on enrolments in TAFE Associate Diploma/Diploma courses indicates there has been a substantial increase in *enrolments* in Associate Diploma/Diploma *courses*, both in South Australia and nationally in recent years, (although the increase in enrolments at this level partially reflects upgrading of previous Advanced Certificate courses to Associate Diploma status and the introduction of new Associate Diploma courses). At the same time it also appears likely that there has been a marked increase in the number of persons *completing* Associate Diploma/Diploma courses in South Australia and nationally in recent years. This indicates that Associate Diploma/Diploma courses are increasingly becoming, to the student population at least, a more commonly accepted form of vocational training. Recent press articles concerning excess demand for university places in 1992, together with suggestions by the Federal Government that persons unable to enter university undertake Associate Diploma courses, suggests increases in demand for middle level training are likely to continue. Enrolments appear to be increasing in respect to two of the three target SADETAFE courses in line with overall enrolment trends, with enrolments in the Associate Diploma in Accounting increasing relatively rapidly.

The question which then arises is whether students' willingness to undertake studies in TAFE in these middle level courses is equalled by employers' enthusiasm for their skills. That is, is this form and level of vocational training of assistance to students in gaining employment in areas related to their vocational training and in respect to their career development? Do employers accept this level of training? This is difficult to gauge from enrolment data alone, as, unlike the apprenticeship system, this level of vocational training does not have specific employment links.

Analysis of the labour market opportunities arising from undertaking middle level vocational training in TAFE and reviewing the labour market experiences of graduates from the three target South Australian DETAFE courses has to some extent answered this question.

3. Labour Market Opportunities Arising from Middle Level Vocational Training in TAFE

This report has attempted to answer the question of what labour market opportunities exist for persons with middle level TAFE vocational training in South Australia by reviewing recent and prospective trends in the employment base available to persons undertaking middle level training through SADETAFE, both at broad levels (i.e. for paraprofessionals) and in respect to the three target SADETAFE courses. In respect to analysing future trends in paraprofessional employment it has been necessary to base discussion on national and State econometric models which provide forecasts of likely changes in employment, given the diversity of occupations and industries under discussion. With this exception, the discussion has been based on analysing longer term underlying trends in the industries where persons with middle level training are generally employed.

The need to analyse underlying trends in the industries where SADETAFE Associate Diploma/Diploma holders are generally employed reflects the fact that occupational demand is a derived demand, where demand for a particular occupation involving particular skills (e.g. mechanical engineering associates) is derived from demand for the goods and services produced by those industries in which persons with these skills are largely employed (i.e. manufacturing industry in the case of mechanical engineering associates). Hence, to develop projections of likely changes in employment in particular occupations it is first necessary to understand likely trends in those industries where persons in these occupations are largely employed.

In this report projections of likely future changes in employment in the occupations under discussion have been constrained to a 3-5 year time horizon. This decision reflects the view that, in a period of rapid structural economic change, where the nature of industries are changing very rapidly, and at a time when award restructuring is also rapidly changing the very nature of many occupations, longer term projections would seem likely to be of limited use in a policy planning context.

What has the micro-economic analysis demonstrated?

The micro-economic analysis has demonstrated that a substantial employment base exists for paraprofessionals both in South Australian and nationally (the main occupational outlet available to persons undertaking TAFE middle level training in the Australian Standard Classification of occupations). Paraprofessional employment has also increased relatively rapidly in South Australia and nationally in recent years.

However, as discussed above, it is possible to enter a variety of paraprofessional occupations without undertaking middle level training through TAFE (i.e. as well as becoming a paraprofessional by undertaking TAFE middle level vocational training, it is possible to become a paraprofessional by undertaking lower level vocational training or by undertaking training at university). At the national level, employment has not risen rapidly in those paraprofessional occupations where TAFE provides middle level training in recent years. Econometric projections in a DEET publication, 'Australia's Workforce in the Year 2001', suggest that this situation will continue in the next 3-5 years.

In contrast to the national experience, in South Australia employment has risen rapidly in recent years in those paraprofessional occupations where SADETAFE provides middle level training in the next 3-5 years. However, it seems likely that this situation will be reversed, and growth in employment in paraprofessional occupations in South Australia will mirror national trends (i.e. growth in employment in those paraprofessional occupations where SADETAFE provides middle level will be slower than in those paraprofessional occupations where SADETAFE does not provide middle level vocational training).

In respect to the three target SADETAFE courses:

- The extent of the employment base available to persons undertaking the SADETAFE Associate Diploma in Accounting is uncertain because the occupational outcome(s) arising from this course are relatively uncertain, as outlined above. However, there has been relatively strong growth in the finance, property and business services industry division in South Australia in recent years (the main industry where persons undertaking the SADETAFE Associate Diploma in Accounting seem likely to be employed). This industry seems likely to continue to grow in the next 3-5 years, although not at the same heady rate as in the mid 1980s, when the Commonwealth Government largely deregulated Australia's financial markets. Demand for accounting services, in particular, seems likely to continue to increase in South Australia in the next 3-5 years, largely in response to ongoing, pending and anticipated changes in Commonwealth and State legislation. However, it should be noted that the rate of supply of persons completing the SADETAFE Associate Diploma in Accounting is relatively high and given the recent explosion in enrolments in this course, the supply of graduates from the SADETAFE Associate Diploma in Accounting seems likely to increase markedly in the next 3-5 years (at a time when the number of university accounting graduates is also apparently likely to continue to increase). Hence the South Australian labour market for accounting services may become somewhat oversupplied with qualified persons in the next 3-5 years.

- There appears to be an ongoing, reasonably well defined employment base (both in ASCO and in relevant industrial awards) available to persons undertaking the SADETAFE Associate Diploma in Mechanical Engineering. However, the number of persons employed as mechanical engineering associates in South Australia has declined markedly in recent years, according to ABS data. Further, the main industry in which mechanical engineering associates appear to be employed, the manufacturing sector, has grown relatively slowly in recent years in South Australia. Given South Australia's heavy reliance on the transport equipment industry, which will face significant pressure to restructure in the next 3-5 years (largely as a result of scheduled reductions on tariffs on imported goods), the future prospects for new demand in respect to this occupation are also somewhat uncertain in a South Australian context. While replacement demand has apparently been relatively high in the occupation of mechanical engineering associates in the past, the current depressed economic outlook in South Australia seems likely to reduce movement out of this occupation in the next 3-5 years. It should also be noted that supply of mechanical engineering associates (both from SADETAFE and the University of South Australia) is relatively high. However, recent initiatives by the State Government to encourage South Australian manufacturers to update their plant and equipment could enhance demand for mechanical engineering associates in South Australia.

- The major likely occupational outlets for persons undertaking the Diploma in Hospitality Management appear to be in hospitality management positions, which are reasonably well defined both in ASCO and relevant industrial awards. The South Australian hospitality industry has grown significantly in recent years, and projections of growth of domestic and international made by the Commonwealth Bureau of Tourism Research (although developed prior to the recent recession) suggest the hospitality industry is likely to continue to expand in

South Australia in the next 3-5 years, despite adverse short term economic pressures. This would enhance new demand for hospitality management personnel. Replacement demand for hospitality management staff is also apparently relatively high in South Australia.

The rate of supply of hospitality management staff from SADETAFE is minimal. However, significant alternative sources of supply of hospitality staff exist in South Australia. It is also a major question as to whether the local hospitality industry values formal vocational training in hospitality management at a Diploma level, given the fragmented nature of the hospitality industry, which is characterised by large numbers of small business (which are frequently managed by their owners). In addition it appears that many international hotels prefer to recruit their hospitality management staff from overseas.

However, the micro-economic analysis of labour market opportunities for people with TAFE middle level training still leaves many questions unanswered in respect to the broader questions as to whether an autonomous, independent, specifically identifiable employment base exists for persons undertaking middle level training through TAFE, especially in respect to the target SADETAFE courses. These questions include:

- given the lack of separate, well defined occupational outlets in ASCO or industrial awards for persons undertaking the SADETAFE Associate Diploma in Accounting (despite which enrolments in this course have risen markedly in recent years) are people with this award well accepted by South Australian firms?
- following a period (the 1980s) when the South Australian manufacturing sector has been under constant pressure to restructure its operations to become more internationally competitive (pressure which may well intensify in the next 3-5 years as a result of scheduled tariff reductions) and the number of persons employed as mechanical engineering associates has declined in South Australia, will graduates from the Associate Diploma in Mechanical Engineering continue to be able to find employment in South Australia in satisfactory numbers (or, just as importantly, will they be able to get jobs in fields relevant to their TAFE vocational qualifications)?
- whether South Australia's hospitality industry, with its high incidence of small businesses, accepts the potential benefit to it of having a well trained hospitality management workforce by readily accepting and employing graduates from the SADETAFE Diploma of Hospitality Management?

These questions, and other related questions, were to some extent answered by three surveys of the main *industries* in which graduates from the three target SADETAFE courses are largely employed, as well as the three surveys of the labour market experiences of *graduates* from these courses and case studies of the labour market experiences of selected longer term graduates from the target SADETAFE courses.

4. Analysis of the Industry Surveys

The three industry surveys which form part of this project have provided primary evidence to augment official data in areas where official data is either not collected, is inappropriate, or is not timely.

The industry survey questionnaires addressed questions such as:

- Do South Australian employers employ SADETAFE graduates from the three target courses?
- Do South Australian employers value their employees' SADETAFE vocational training?
- How do employers regard SADETAFE training vis-a-vis university training?
- Do South Australian employers actively seek persons with TAFE middle level training when recruiting new staff or promoting staff?

- Are South Australian employers willing to use SADETAFE as a training provider in the future in respect to the three target courses?

The survey populations were drawn from the main industries where graduates from the three target SADETAFE courses are generally employed. In selecting the survey population a conscious effort has been made to include both public and private sector employers and large and small organisations.

As shown in Table 1 below, response rates to the three industry surveys varied from 26.4 per cent for the hospitality industry survey to 43.3 per cent for the accounting industry survey (adjusted to take account of returns to sender). The response rates to the mechanical engineering and accounting surveys thus meets the general social science benchmark (of a 30 per cent survey response rate) and may be considered as being reasonably representative of the views of the survey population.

Table 1: Response Rates to Industry Surveys

	Mechanical Engineering	Hospitality Management	Accounting
Population	381	417	404
Returns	139	107	171
Returns to Sender	34	12	9
Raw Response Rate	36.5%	25.7%	42.3%
Adjusted Response Rate	40.1%	26.4%	43.3%

Source: Survey data

While the response rate to the hospitality industry survey appears relatively low considered against this benchmark, South Australian hospitality industry sources suggest that surveys of this industry frequently result in response rates as low as 5-10 per cent. Against this background, the response rate achieved in this survey is a credible result.

(It should also be noted that survey respondents employed, according to data supplied in the course of the three survey questionnaires, 91560 people. In the context of a small regional economy such as South Australia's, this implies the survey results are very credible, inasmuch as survey respondents provide over 15 per cent of total State employment).

Notwithstanding this comment the three industry surveys obviously present only a limited perspective of the views of South Australian industry concerning middle level TAFE training. However, considered as a group, the three industry surveys suggest that SADETAFE middle level training is *not* widely recognised in industrial awards. Other findings include:

- The three industry surveys suggest a significant proportion of survey respondents employed persons who had completed one of the three target SADETAFE middle level courses or employed persons who were currently undertaking one of the target courses.

- A significant proportion of survey respondents were "well informed" or "partly informed" about the target SADETAFE courses.

- SADETAFE middle level training was generally well regarded by survey respondents vis-a-vis university training.

- Many survey respondents had used SADETAFE vocational training in the past, generally via existing courses. The majority of survey respondents also indicated they would utilise SADETAFE for vocational training in the future.

- Most survey respondents considered the target SADETAFE courses provided "excellent subject knowledge" or "good subject knowledge" in existing courses. However, as discussed above, the

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majority of respondents to the hospitality and mechanical engineering surveys suggested additional training is needed in some (new) areas.

- Opinion varied on the use of specific short courses (of specific interest to survey respondents) versus use of existing award courses. Respondents to the accounting survey generally preferred the existing concept of an award carrying course. However, the majority of respondents to the hospitality and mechanical engineering industry surveys favoured short courses.

- *Notwithstanding the generally positive perceptions of survey respondents to SADETAFE middle level training, the majority of respondents to each industry survey did not actively seek persons with middle level qualifications from the three target SADETAFE courses when recruiting new staff or promoting staff. Moreover, most industry survey respondents valued on the job experience rather than academic qualifications when recruiting or promoting staff.*

5. Analysis of the Three Graduate Surveys

It is obviously difficult to make strong *general* conclusions about the overall outcomes of three surveys of graduates from three courses as disparate as the three target SADETAFE middle level courses under discussion in this paper. Nonetheless, in this executive summary an attempt has been made to draw together some of the common experiences of graduates from the SADETAFE Associate Diploma in Accounting, the Associate Diploma in Mechanical Engineering and the Diploma in Hospitality Management. From these common experiences it is hoped that valid conclusions can be drawn not only in respect to the three target SADETAFE courses, but also in regard to wider provision of middle level training by SADETAFE.

Response rates to the three graduate survey questionnaires have been pleasing. In part this reflects the extensive efforts of NCVER staff to verify SADETAFE graduates' addresses, e.g. by reference to electoral rolls. Response rates to the individual graduate questionnaires are shown in Table 2 below.

Table 2: Response Rates to the Graduate Surveys

	Mechanical Engineering	Hospitality Management	Accounting
Population	200	111	222
Returns	128	54	169
RTS	22	21	7
Raw Response Rate	64.0%	48.7%	76.1%
Adjusted Response Rate	71.9%	60.0%	78.6%

Source: Survey data

The relatively high response rates to the three graduate survey questionnaires suggests that it is reasonable to assume that the views of survey respondents are reasonably representative of the views of the total survey population in respect to each graduate survey.

This analysis has primarily attempted to address questions such as whether SADETAFE graduates from target courses are employed, on what basis they are employed, (i.e. full-time, part-time or casual), whether their SADETAFE studies assisted them in gaining employment (if employed) and whether graduates SADETAFE studies are relevant to their work. Graduates further study intentions have also been an area of interest.

The three graduate survey questionnaires have tended to suggest that:-

- graduates from the three courses are employed in similar proportions to the rest of the South Australian community (i.e. unemployment amongst graduates from the target courses is not excessive) and for many graduates who commenced their current position after starting their SADETAFE studies, their studies were essential and they would not be employed in their present position without their SADETAFE middle level vocational training;

- graduates' SADETAFE middle level vocational training has commonly assisted them to gain employment;

- generally speaking, a substantial proportion of graduates from these three SADETAFE courses find their studies relevant to their work, and use a substantial proportion of the knowledge and skills gained from their SADETAFE middle level training in the course of their work.

It is also noteworthy that many SADETAFE graduates from the three target courses intend to undertake further study, generally at University (although most mechanical engineering graduates intended to study at SADETAFE). It is therefore important that articulation issues be addressed to ensure SADETAFE students receive appropriate credit for their middle level studies in an orderly, consistent fashion, rather than on an ad hoc basis.

6. Analysis of the Outcomes of Case Studies of Graduates

The graduate case studies provided an opportunity for a more detailed analysis of the labour market experiences of persons who graduated from the target SADETAFE courses some time ago. The case studies involved conducting intensive interviews with five graduates from each of the three target SADETAFE courses about their career progress since graduating from their SADETAFE course. In this way the contribution of SADETAFE middle level training to longer term career developments could be assessed.

Case study participants were selected against a number of criteria. These criteria included:

- willingness to participate in the case studies (all graduates participated on a voluntary basis);

- career progression - candidates for the case studies generally were longer term graduates who had a greater opportunity to develop their careers (although for graduates from the Associate Diploma in Accounting and the Diploma in Hospitality Management this was difficult given the recent developments of these courses); and

- gender balance - a major intention of the case studies was to examine both male and female career progression to compare the contribution of SADETAFE middle level training.

As with the three graduate surveys, it was once again difficult to make definite conclusions regarding the experiences of case study participants. Nevertheless, considered as a group, the case study interviews tended to suggest that:

- the most common motivation for most case study participants for undertaking their course of study was to improve their career prospects or to change their career paths;

- while in most cases the target SADETAFE courses were not a pre-requisite to obtaining a position, it did give case study participants an advantage over other applicants;

- while most employers of case study participants recognised the importance of formal qualifications, in the long-run, on-the-job training/experience was seen to be a more important criteria for career advancement;

- career opportunities arising from undertaking the three target SADETAFE courses appear limited for most case study participants;

- the majority of SADETAFE case study participants were not employed under an industrial award;

- while all firms had an equal opportunity policy, men did tend to dominate in particular industries (e.g. hospitality).

7. The Future of Middle Level Training and its Administration

There are a number of issues arising from the preceding analysis. These issues (which are discussed in more detail below) include:

- The nature and extent of the employment base available to persons with middle level TAFE training.
- The impact of award restructuring on the employment base available to persons with middle level training.
- Recognition of prior learning.
- Possible alternatives to existing modes of middle level training in TAFE.
- Articulation between middle level training and universities.
- A possible need for additional exit points from middle level training.
- The marketing of middle level training to employers.
- Gender issues arising from the preceding analysis.
- The need for further research in respect to middle level training.

▪ *The Extent of the Employment Base Available to Persons with Middle Level TAFE Training.*

The preceding analysis suggests that a significant employment base exists for persons with middle level training both in South Australia and nationally. Middle level vocational training in TAFE is a common means of entry to the Paraprofessional Major Group in ASCO (notwithstanding the classification difficulties discussed above) and employment of paraprofessionals is significant in South Australia and nationally. The graduate surveys discussed above also suggested that substantial employment opportunities exist in those occupations for which TAFE middle level training results in occupational outlets outside the Paraprofessional Major Group in ASCO (although it is pertinent to recognise the difficulties arising from generalising from surveys of only a few SADETAFE courses).

Econometric models suggest that only limited growth in employment is likely in middle level occupations for which SADETAFE provides vocational training in the next 3-5 years. (However, award restructuring will influence the growth in this employment base in the next 3–5 years - see the discussion below). In respect to the three target occupations:

- Continued growth seems likely in the employment base available to accounting personnel in the next 3–5 years.

- The employment prospects of mechanical engineering associates will be constrained by cuts in tariffs on imported goods but could be enhanced by technological change as well as recent State Government initiatives to encourage South Australian manufacturers to upgrade their plant and equipment.

- The prospects for South Australia's hospitality industry in the next 3–5 years appear reasonably positive.

▪ *The Impact of Award Restructuring*

Award restructuring seems likely to further consolidate the employment base available to persons with middle level training. The concept of providing opportunities for career development via vocational training is a central tenet of award restructuring. As industrial awards are being redeveloped around this concept, the vocational training required to work at particular levels within industrial awards is generally being specified in industrial awards.

In this context middle level training has an important role in providing a bridge between entry level vocational training and professional training at universities.

- *Recognition of Prior Learning*

As award restructuring becomes more widespread, mechanisms will increasingly need to be established to assess on-the-job learning. It is *not* the purpose of this paper to debate the types of methods to be used in assessing prior learning. However, it seems likely that on-the-job learning will increasingly come to be seen as an integral part of the vocational training system, including credit by TAFE for industrial learning experiences. It is hence important that this issue be given urgent consideration by interested parties to ensure that TAFE has the opportunity to recognise prior industrial learning in a consistent fashion.

- *Possible Alternatives to Existing Middle Level Training in TAFE*

The project profile requested that consideration be given to alternative modes of training. Accordingly, this issue was explicitly addressed in the three industry surveys which form part of this project. While readers are again reminded that drawing general conclusions from more specific analysis relating to particular courses naturally involves at least an element of speculation, it is noteworthy that, in respect to two out of three of the target SADETAFE courses, the majority of survey respondents suggested they would prefer shorter courses addressing specific topics of interest to their organisation rather than the existing Associate Diploma/Diploma course.

- *Additional Exit Points/More Full-time Places*

Case study participants frequently referred to the length of their middle level courses as a substantial barrier to completing their courses on a part-time basis. Case study participants frequently suggested that the provision of more exit points, with suitable awards, would have been advantageous to them and would have produced more incentive to complete their SADETAFE course. As discussed earlier in this paper (see Section 1 for details) Guthrie and Loveder's paper on this issue reached a similar conclusion.

It is therefore suggested that SADETAFE consider the possibility of providing more exit points from middle level courses.

The sheer number of students undertaking the Associate Diploma in Accounting also suggests that it may be advisable for SADETAFE to provide more full-time places in this course to 'clear the backlog'.

- *Articulation between TAFE Middle Level Training and University Studies*

The three survey questionnaires of the labour market experiences of graduates from the SADETAFE Associate Diploma in Accounting, Associate Diploma in Mechanical Engineering and the Diploma in Hospitality Management included a series of questions concerning graduates' future study intentions.

Responses to these survey questions indicate that a considerable proportion of SADETAFE graduates from the three target courses intended to undertake further study, generally at university, (especially younger graduates who had completed Year 12).

A need therefore exists for a mechanism to ensure that all SADETAFE graduates from middle level training receive appropriate credit for their studies at SADETAFE in a consistent fashion.

This need is even more pressing in the context of award restructuring which has as a central concept the notion of 'career paths', where individuals have the opportunity to move from base levels to more senior positions, partially as a result of undertaking vocational training, while receiving due credit at each stage of their career for previous learning experiences.

- ***Marketing of Middle Level TAFE Courses***

The image of middle level TAFE training among South Australian employers appears to be a matter for some concern. Respondents to each of the three industry surveys, generally speaking, suggested they had at least a reasonable working knowledge of the target SADETAFE courses.

The majority of respondents to the three industry surveys also commented favourably on the material provided in existing SADETAFE courses, although in some cases (see Section 3 for details) survey respondents suggested additional training is necessary in additional subject areas. (Perhaps this issue will be partially resolved by curriculum reviews which are taking place in respect to accounting and mechanical engineering which have involved extensive liaison with South Australian industry.) Survey respondents also commonly stated that SADETAFE middle level training was held in high esteem vis-a-vis university training.

However, notwithstanding the generally positive perceptions of industry survey respondents of SADETAFE middle level vocational training, the majority of respondents to each survey did not actively seek persons with qualifications from the three target SADETAFE courses when recruiting new staff or promoting staff. Moreover, most survey respondents valued on-the-job experience rather than academic qualifications when recruiting or promoting staff.

This inconsistency suggests that SADETAFE needs to market its middle level training more effectively, so that the South Australian business community comes to better appreciate the benefits of middle level training through SADETAFE.

- ***Gender Issues***

The major gender issues which this paper addresses are:

- access to the target SADETAFE courses;
- successful participation in SADETAFE courses (ie graduating); and
- exploitative employment practices exposed via the three industry surveys, the three graduate surveys and the graduate case studies.

In terms of *access* to the target SADETAFE courses, a significant proportion of students in the Associate Diploma in Accounting and the Diploma in Hospitality Management were female. However, there were relatively few females enrolled in the Associate Diploma in Mechanical Engineering (see Section 2 for details).

This suggests that SADETAFE needs to place more emphasis on promoting vocational training in engineering disciplines to females, to ensure they are not precluded, by narrow traditionalist stereotyping attitudes, from the many labour market opportunities that exist in engineering in South Australia.

In terms of *successful participation* in vocational training in SADETAFE, female graduation rates seem broadly in line with enrolments in the Associate Diploma in Accounting and the Diploma in Hospitality Management. However, only one female graduate in Mechanical Engineering was revealed on interrogation of data concerning graduates from Regency College. This again highlights the need to promote female participation in this course.

In terms of *exploitative employment practices*, it is noteworthy that a much higher proportion of female employment in the hospitality industry (for all employees in the industry, not just SADETAFE graduates) was on a casual or part-time basis than was the case for male employment. This suggests females are being underemployed in this industry. This was emphasised by case study participants, one of whom suggested that:

- Men work as managers, eg by doing accounting, ordering goods etc, while women, at best, get to be supervisors. She said *'Men get the challenging positions'*.

This suggests SADETAFE needs to further promote the idea of female participation in management in its dealings with this industry.

■ *Future Research*

This paper has addressed a wide variety of issues in relation to middle level training. Along the way, however, various issues have come to light which it has not been possible to address fully in the context of this project. Outstanding issues include:

- Detailing the extent of credit transfer available to persons undertaking middle level training through TAFE.
- Assessing the resource implications for TAFE of greater emphasis on middle level courses.
- Reviewing the fees payable for undertaking middle level training through TAFE to ensure appropriate cost recovery.
- Certification issues - who should accredit and certificate middle level courses in TAFE?

The National Centre for Vocational Education Research will be addressing some of these issues in the next year. If award restructuring is to succeed, and make a significant contribution to revitalising Australian industry, it is important that these key issues be addressed in the near future.

■ *Some Final Conclusions*

Middle level training in TAFE has assumed new importance both in South Australia and nationally in the past decade. Enrolments in middle level TAFE courses have grown remarkably in recent years, and with greater emphasis on providing opportunities for career development under award restructuring, enrolments in middle level TAFE courses seem likely to continue to increase in the next 3–5 years.

This report has suggested there is a substantial employment base available to persons with middle level training in South Australia, and that this employment base will continue to grow in the next 3–5 years despite the fact that the three industry surveys which form part of the project suggest that South Australian employers (in respect to the three target courses) do not actively seek persons with middle level training when recruiting or promoting staff. (Although econometric forecasts suggest employment growth in those occupations for which TAFE provides middle level training will grow relatively slowly in the next 3–5 years, these forecasts were developed prior to award restructuring).

As discussed above, in respect to the three SADETAFE courses which have been the focus of much discussion in this report, the prospects for accounting personnel appear reasonable in South Australia in the next 3–5 years. The prospects for mechanical engineering associates are critically dependent on the effects of tariff reductions and the extent to which the South Australian manufacturing sector embraces state-of-the-art technology, and the prospects for the State's hospitality industry appear reasonable. (One major concern in respect to the Diploma in Hospitality Management is that owners of smaller hospitality establishments, survey data suggests, do not hold this course in high esteem, despite the fact that this course has international recognition). SADETAFE needs to address this issue.

The emergence of TAFE middle level training implies a great need for clarification of articulation practices between TAFE and universities. This issue needs to be addressed as a matter of urgency.

Ultimately, while this project has covered new ground in some areas, it has also revealed new issues which need to be addressed. These were briefly discussed above. Given the substantial growth in TAFE middle level training in the past decade, this research needs to be undertaken as a matter of urgency, to ensure that both industry and students get the best possible value from middle level vocational training. One final question concerning the administration of middle level training raised by this paper is whether, following the amalgamation of universities and CAEs, TAFE is the appropriate vehicle for middle level training. Perhaps TAFE should 'concentrate on its more traditional 'knitting' i.e. entry level training, with middle level training to be provided by institutions specialising in training at this level.

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Section 1: Introduction

1.1 Background

This study has been undertaken by the National Centre for Vocational Education Research (formerly the TAFE National Centre for Research and Development) on behalf of the South Australian Department of Employment and Technical and Further Education (SADETAFE).

There have been various studies of aspects of TAFE middle level training in the past in Australia. However, little attention has been paid to the middle level employment base available to middle-level graduates and the extent to which their training is 'well targeted' in terms of meeting industry's needs for suitably trained staff, and in terms of proving useful to graduates in terms of gaining employment in occupations where their vocational training is relevant. A special problem is that a level of training derived from the occupation 'engineering associate' has been applied to white collar and service industries without real market testing.

Middle level employment (also termed paraprofessional level) may be defined as the occupational level between the technician or post-trade level and the professional level.

> The Australian Standard Classification of Occupations (ASCO) provides the following definition of a Paraprofessional's duties:
>
> *Paraprofessionals perform complex technical duties requiring the understanding of a body of theoretical knowledge and significant practical skills.*
> *Occupations in this major group have level of skill commensurate with a 2-3 year certificate or associate diploma. Most Paraprofessionals receive some on-the-job training in addition to formal education.*
> *Duties performed by Paraprofessionals include conducting laboratory tests; operating and maintaining complex equipment; operating and supporting the operation of ships; providing skilled nursing care; enforcing the law; and inspecting establishments and sites to ensure conformity to government and industry standards. These duties are often performed in support of professionals.*

To some degree, the current project is an extension of research previously undertaken by Hugh Guthrie and Philip Loveder from the TAFE National Centre for Research and Development in 1989. In their report, entitled *Approaches to multiple entry and exit points for the Associate Diplomas*, Guthrie and Loveder (1990) examined what approaches were being taken, or could be adopted, to provide appropriate multiple entry and exit points for the Associate Diplomas and Diplomas offered by the South Australian Department of Employment and Technical and Further Education.[1]

This project extends this previous research to include:

- broad analysis of recent trends in enrolments in all TAFE Associate Diploma/Diploma courses offered in South Australia and nationally;
- examining the broad labour market available to persons undertaking Associate Diplomas or Diplomas through TAFE in South Australia and nationally;
- analysis of the acceptance by employers of this level of vocational training by examining past trends and prospective trends in the employment base in certain manufacturing and service industries for Associate Diploma/Diploma holders;

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[1] Guthrie, H., and Loveder, P. (1990). *Approaches to multiple entry and exit points for the Associate Diplomas.*

- analysis of the labour market experiences of graduates from the particular South Australian Associate Diploma/Diploma courses (see Section 1.2 below for details);

- reviewing the effects of recent changes in the workplace environment, especially as a result of award restructuring, on the employment base available to persons with middle level TAFE vocational training.

1.2 Aims of the Project

The project has four main aims:

- to determine whether an autonomous[2] middle level employment base (ie. the level for which Associate Diploma and Diploma courses provide vocational training)[3] exists in selected manufacturing and service industries in South Australia;

- to identify recent trends in this employment base in South Australia and develop projections for the future;

- to examine related trends in middle level occupations and the implications for middle level training (e.g. the effects of award restructuring); and

- to discuss the future of middle level training and review the administration of middle level training.

Occupations where a detailed analysis of recent employment trends and the future outlook has been provided include those occupations broadly covered by the following three South Australian Department of Employment and Technical and Further Education courses:

- the Associate Diploma in Accounting;

- the Associate Diploma in Mechanical Engineering; and

- the Diploma in Hospitality Management.

The aim of these three courses are detailed in Appendix 1 to this report.

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[2] What does the term autonomous mean in this context? This question has provoked considerable discussion among members of the Consultative Committee oversighting this project (the role of the Consultative Committee is discussed in detail at 1.7 below) and other interested parties. The Macquarie Dictionary provides the following definition "1. Self-governing; independent; subject to its own laws only; pertaining to an autonomy. 2. Independent; self-contained; self sufficient; self governing. 3. Philos. containing its own guiding principles. 4. Biol. existing as an independent organisation".

For the purposes of this paper, an autonomous employment base is defined as an independent, separately identifiable employment base which exists in its own right because there is a sustained demand in the economy for the skills and services of persons working in a particular occupation.

[3] As a general guide, a qualification meeting the standard of Associate Diploma requires a minimum of two years of full-time study or four years of part-time study, while a Diploma requires three years full-time study or six years of part-time study. For a more detailed definition see David Rumsey, of J.P. Young and Associates for the Vocational Education, Employment and Training Advisory Committee, (1991), *Issues Paper, The National Alignment of Vocational Education and Training Credentials to The Australian Standards Framework.*

1.3 Scope of This Study

This study includes analysis of:

- The extent to which middle level vocational training is recognised in the Australian Standard Classification of Occupations (ASCO).

- The extent to which middle level vocational training is recognised in existing industrial awards which relate to the occupations for which those Associate Diploma/Diploma courses which are the focus of this study (viz, the SADETAFE Associate Diploma in Accounting, the Diploma in Hospitality Management, the Associate Diploma in Mechanical Engineering) provide vocational training.

- Broad trends in enrolments in Associate Diploma/Diploma courses in recent years, both in South Australia and at the national level (and related changes in educational attainment), together with analysis of recent trends in employment in related occupations (ie. ASCO Major Group 3, Paraprofessionals).

- More specific analysis of trends in enrolments in the three South Australian DETAFE Associate Diploma/Diploma courses which form the focus of discussion in this study, and analysis of recent and likely trends in employment in related occupations. The aim of these more detailed analyses is to concentrate discussion (to the maximum extent possible) on longer term structural economic factors which will influence the main industries in which graduates from these three focus courses are likely to be employed over the next 3-5 years, rather than short-term cyclical economic factors. Structural economic change occurs as a result of more fundamental, longer term, irreversible and deterministic factors such as:

    - technological change resulting in a rapid and increasing rate of innovation in communications and computing technology, based on micro-electronics;

    - changes in consumer preferences and tastes favouring relatively more consumption of, for example, restaurant services and relatively less consumption of food products consumed in the house;

    - government policy decisions to reduce tariffs on products like footwear which confer a cost advantage to low-wage countries such as China.

  (Cyclical economic change, by contrast, occurs as a result of short-term changes in the business cycle reflecting factors like seasonal influences or government policy intended to expand or contract economic activity. For example, the 1990/91 economic downturn has occurred as a result of cyclical factors, particularly through changes in the Commonwealth Government's macro-economic policies.)[4]

- Analysis of the perceptions of employers of TAFE graduates concerning the existence of a discrete, autonomous employment base in South Australia for persons holding the South Australian DETAFE Associate Diploma/Diplomas in Accounting, Mechanical Engineering and Hospitality Management.

- Analysis of the likely impact of award restructuring on the existing employment base for persons who have completed these middle level DETAFE courses.

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[4] Labour Market Analysis Branch, South Australian Department of Employment and Technical and Further Education (1991), *TAFE Labour Market Issues*, Issue 4, 'Emergence of the Post-industry economy - Overview', Vol. 1, No. 4.

- Discussion of gender issues arising from the preceding analysis (eg. existence of career opportunities for women in occupations traditionally dominated by men).

1.4 Research Methodologies Used in This Study

This project has involved a variety of social research methodologies. These methodologies include:

- *A survey of existing literature of relevance to the project.* The literature survey has had two foci: first, the development of an information base concerning the recognition of middle level training in relevant industrial awards; second, development of a qualitative and quantitative data base regarding trends in employment in middle level occupations.

- *Labour market analysis.* The approach utilised in this study is described in detail in TAFE Labour Market Issues, Vol. 1 No. 9 *Labour Market Forecasting Methods for TAFE Program Planners.* (This is the ninth in a series of occasional monographs informing South Australian DETAFE staff about broad labour market issues, which is produced by the Labour Market Analysis Branch in the South Australian Department of Employment and Technical and Further Education). In essence, the approach involves detailed industry-based assessments of training needs, as opposed to mechanical econometric modelling. It involved assessment of future trends in occupational supply and demand based on an appreciation of likely long term structural trends in those industries where persons working in target occupations are generally employed.

- *Industry surveys.*[5] The project has involved conducting three surveys of the main industries in which graduates from the three target South Australian DETAFE courses (ie. the Associate Diplomas in Accounting and Mechanical Engineering and the Diploma in Hospitality Management) are largely employed. The purpose of the industry surveys was to examine employers' understanding of the concept of middle level training and their acknowledgment of the relevance of middle level training in recruiting new staff and promoting staff from within their organisations.

- *Graduate surveys.* The project has included conducting surveys of graduates from the three target South Australian DETAFE courses, as a means of establishing the labour market outcomes arising from graduates' vocational training (eg. whether graduates are employed or unemployed, and if employed, whether their employment is related to their vocational training).

- *Case studies.* Case studies have been undertaken of persons who have completed the Associate Diploma in Accounting, the Diploma in Hospitality Management, the Associate Diploma in Mechanical Engineering offered by the South Australian Department of Technical and Further Education and have had longer term exposure to the labour market. The purpose of the case studies was to examine graduates' motivations for undertaking their course of study and their perceptions of labour market opportunities available to them from completion of their Associate Diploma/Diploma course. The case studies also discuss the impact undertaking middle level training has had on these graduates longer term career development.

- *Discussions with relevant industry bodies and unions.* The aims of these discussions are, firstly to test the level of acceptance by industry of the concept of middle level training, especially post award restructuring, and secondly, to gain the views of industry and union representatives concerning likely future employment trends in selected manufacturing and service industries which form the focus of this study.

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[5] The methodologies used in the Graduate and Industry survey questionnaires are discussed in greater detail in Appendix 3 to this report. Copies of the Graduate and Industry surveys are attached at Appendixes 4 and 5.

1.5 Data Sources and Limitations

Data contained in this report comes from a wide variety of sources, as discussed below. The limitations of particular data sources are also discussed below.

The main source of *recent* labour market data used in this report is the Australian Bureau of Statistics (ABS) Monthly Labour Force Survey. The Labour Force Survey estimates are based on a sample survey rather than a full count of the State and national population and are therefore subject to sampling error which may be relatively high in regard to State data. Those estimates with a high relative standard error contained in this report are marked with an asterisk, and caution should be exercised when using these figures for analytical purposes.

Data from the Census of Populations and Housing, which is also produced by the ABS, has also been used in the study. However, the Census is only conducted on a five-yearly basis and there are long lead times between data collection and data availability. The most recent census from which occupational and industry data is available in respect to South Australia was that for 1986, data from which is now dated.

Data on employment in particular occupations is available from both the ABS Labour Force Survey (on a quarterly basis) and from the five-yearly Census of Population and Housing. ABS occupational data is classified according to the Australian Standard Classification of Occupations (ASCO).

The ASCO structure encompasses four distinct levels of occupation aggregation. At the base level of the structure there are 1,079 *individual occupations* covering all jobs in the labour force. This is referred to as the 6-digit ASCO level (eg. the occupation of trained accountant has the 6-digit code of 270101). At the second level of aggregation there are 282 *unit groups*, each containing a defined set of occupations. This is known as the 4-digit ASCO level. The occupation of accountants falls within the unit group 2701 Accountants. The third level comprises 52 *minor groups*, each containing a defined set of unit groups. This is known as the 2-digit ASCO level (the unit group of accountants falls within the minor group 27 Business Professionals). The fourth and highest level of the structure identifies 8 *major groups* in terms of their constituent minor groups. This level is known as 1-digit ASCO (the major group). Business Professionals fall within major group 2 Professionals.

Unfortunately, occupational data from both the Labour Force Survey and the most recent Census of Population and Housing does not include statistics in employment to the 'occupation' (6-digit) level. *Hence, the most detailed data available is at the unit group or 4-digit level.*

In some cases, occupational data from other sources is used in this report to supplement ABS data in cases where ABS data does not provide appropriate of timely data in respect to the occupation under review. Data of this nature generally comes from the Commonwealth Department of Employment, Education and Training (DEET), which conducts occupational analyses for many occupations at a State level. In addition, information has been supplied by relevant industry associations and unions.

Data on employment by industry is also available from the ABS. Industries are classified using the Australian Standard Industrial Classification (ASIC). Under this system, industries are classified into Divisions, Subdivisions, Groups and Classes (the most detailed classification). Using the Finance and Business Services Division as an example (where most accounting personnel are employed), the structure of the ASIC classification is shown below.

ASIC STRUCTURE		Example
13 Divisions (Alphabetic)	I	Finance, Property & Business Services
50 Subdivisions (2 digit)	61	Finance and Investments
129 Groups (3 digit)	614	Banking
466 Classes (4 digit)	6141	Central Bank

TAFE enrolment data

Data on TAFE enrolments on courses offered in the Transport Engineering Program are presented in Section 2 of this report. This data has been provided by the Statistics Division, TAFE National Centre for Research and Development, and the South Australian Department of Employment and Technical and Further Education.

1.6 Structure of the Report

The report comprises seven sections. Section 2, which follows this section, provides information on the occupations for which Associate Diploma/Diploma courses provide vocational training, both generally and in regard to the target Associate Diploma/Diploma courses detailed in Section 1.2 above. This Section also reviews the extent to which Associate Diploma/Diploma courses are recognised in ASCO occupational definitions and in relevant industrial awards, and discusses the impact of award restructuring on educational requirements for particular occupations. Section 3 is devoted to analysing recent and prospective employment trends for Paraprofessional in South Australia (ie. the major potential labour market outcome for persons undertaking Associate Diploma/Diploma courses), together with more detailed analysis of recent and prospective employment trends in South Australia in respect to those occupations for which the target Associate Diploma/Diploma courses cited at Section 1.2 above provide vocational training.

In the following sections, Sections 4 and 5, the results of the industry and graduate surveys are presented. In Section 6, the results of case studies of graduates from the target SADETAFE Associate Diploma/Diploma courses are presented. The final section, Section 7, draws the preceding analysis together and presents conclusions on whether an autonomous employment base for persons undertaking middle level training exists in South Australia, the future prospects for this employment base in South Australia, whether alternative training modes are desirable, and the effects of award restructuring on middle level occupations. Section 7 also discusses differences in public sector and private sector employment practices, and discusses gender issues, arising from the analysis presented in earlier sections of the report. Finally, Section 7 discusses the future for Associate Diploma/Diploma courses and their role in the education system.

1.7 Project Management

As is the National Centre for Vocational Education Research's usual practice, the project has been oversighted by a consultative committee. Members of the Consultative Committee include:

- C. (Max) Adlam, Metal Engineering Worker's Union;

- David Eitzen and Fiona Ritchie, National Institute of Accountants;
- Peter King, Department of Employment and Technical and Further Education;
- Shelley Rogers, United Trades and Labour Council of South Australia;
- Robin Ryan, Department of Employment and Technical and Further Education;
- Michael Cheers, Hotels and Hospitality Industry Association;
- as well as members of the National Centre's research team.

Section 2: Community Acceptance of Middle Level Training

2.1 Introduction

Section 2 of this report examines community acceptance of middle level training. Section 2 discusses the broad occupational outcomes set out in official occupational nomenclature arising from middle level training in TAFE, as well as the more specific occupational outcomes arising from undertaking studies in the three Associate Diploma/Diploma courses which are the focus of this study, (i.e. the Associate Diploma in Mechanical Engineering, the Associate Diploma in Accounting, and the Diploma in Hospitality Management which are offered by the Department of Employment and Technical and Further Education in South Australia).

Section 2 then reviews the extent to which industrial award occupational definitions in respect to the target occupations (i.e. those occupations which are the most likely occupational outcomes from undertaking the target SADETAFE courses) incorporate reference to Associate Diploma/Diploma courses, both before and subsequent to award restructuring. An associated issue, recognition of experiential learning, is also discussed briefly in Section 2.

Finally, Section 2 examines overall trends in enrolments in Associate Diploma/Diploma courses, both in South Australia and nationally (and associated changes in educational attainment), and examines recent trends in enrolments in the three target South Australian DETAFE courses.

2.2 Broad Occupational Outcomes Arising from Middle Level Training

This sub-section discusses the broad occupational outcomes likely to arise from middle level vocational training as set out in the Australian Standard Classification of Occupations (ASCO). The Australian Standard Classification of Occupations is based on defining occupations by "skill level". In ASCO, skill levels are defined in terms of the vocational training and/or industrial experience required to undertake an occupation.

Occupations are placed into particular ASCO Major Groups based on a national appreciation of level of skills required to undertake the occupation. Occupations in ASCO Major Group 1 Managers and Administrators, are hence regarded as more skilled then occupations in ASCO Major Group 2, Professionals, and Professional occupations are, in turn, viewed as being more highly skilled than occupations in Major Group 3, Paraprofessionals.[1] (By contrast, the previous system of occupational classifications used in Australia, the Classification and Classified List of Occupations (CCLO), defined occupations according to the goods and services produced by persons in an occupation, rather than on the skills needed to undertake the occupation).

The extent to which Associate Diplomas/Diplomas are recognised in Australian Standard Classification of Occupations (ASCO) occupational definitions (and occupational definitions in industrial awards) is therefore an important test in determining whether an autonomous employment base exists for persons undertaking middle level training in TAFE. Recognition of Associate Diploma/Diploma courses in broad occupational definitions implies there are discrete occupations for which TAFE Associate Diplomas/Diplomas provide vocational training. Conversely, failure by official occupational classifications and industry to recognise middle level training in occupational definitions implies the reverse, i.e. that middle level training is not seen as being relevant to occupational outcomes. This would cast severe doubt on the existence of an independent, autonomous employment base for middle level training.

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[1] The Australian Standard Classifications of Occupations (ASCO) is divided into the following Major Groups, in descending level of skill: Major Group 1, Managers and Administrators; Major Group 2, Professionals; Major Group 3, Paraprofessionals; Major Group 4, Tradespersons; Major Group 5, Clerks; Major Group 6, Salespersons and Personal Service Workers; Major Group 7, Plant and Machine Operators and Drivers; Major Group 8, Labourers and Related workers.

The ASCO Dictionary of Occupations explicitly associates middle level vocational training with Major Group 3 in ASCO, Paraprofessionals. This would appear to imply that Associate Diplomas/Diplomas are recognised in official occupational definitions as the educational norm for entering Paraprofessional occupations. Hence Associate Diploma/Diploma courses would appear to pass this initial test of recognition in official occupational nomenclature for establishing whether an autonomous employment base exists for Associate Diploma holders.

The following definition of Major Group 3, Paraprofessionals, appears at page 135 of the ASCO Dictionary of Occupations:

> *Paraprofessionals perform complex technical duties requiring the understanding of a body of theoretical knowledge and significant practical skills.*
>
> *Occupations in this major group have a level of skill commensurate with a 2-3 year certificate or associate diploma. Most paraprofessionals receive some on-the-job training in addition to formal education.*
>
> *Duties performed by paraprofessionals include conducting laboratory tests; operating and maintaining complex equipment; operating and supporting the operation of ships; providing skilled nursing care; enforcing the law; and inspecting establishments and sites to ensure conformity to government and industry standards. These duties are often performed in support of professionals.*
>
> *Content*
>
> *Occupations in this major group are classified into the following minor groups:*
>
> 31 *Medical and Science Technical Officers and Technicians*
> 32 *Engineering and Building Associates and Technicians*
> 33 *Air and Sea Transport Technical Workers*
> 34 *Registered Nurses*
> 35 *Police*
> 39 *Miscellaneous Paraprofessionals*[2]

The Department of Employment, Education and Training (DEET) provided a similar definition in *Skills Recognition in Australia* which states:

> *Paraprofessionals normally need a 2-3 year certificate or associate diploma. Most occupations in this category also require some on-the-job training in addition to a certificate or diploma. Many paraprofessionals are also described as* **technicians**.
>
> *The work of paraprofessionals and technicians requires the understanding of complex theoretical knowledge and highly developed practical skills.*
>
> *Paraprofessional and technical occupations cover a wide variety of work. Often the work supports that of professionals. This is particularly the case in engineering and health-related technical areas.*[3]

It is, however, open to question whether the ASCO Dictionary of Occupations or DEET adequately defines either the term *paraprofessional* or describes the vocational qualifications required to work at this level appropriately. Indeed, the treatment of middle level training is somewhat confusing.

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[2] Department of Employment and Industrial Relations and the Australian Bureau of Statistics, (1987) *Australian Standard Classification of Occupations Dictionary*, p.135.

[3] Department of Employment, Education and Training (DEET), (1990), *Skills recognition in Australia* p.2.

The level of occupational outcomes arising from undertaking middle level TAFE training are not consistently defined by the existing Australian Standard Classification of Occupations (ASCO). Completing an Associate Diploma frequently results in occupational outcomes which lie outside of Major Group 3, Paraprofessionals, in the Australian Standard Classification of Occupation.

This can readily be illustrated by reference to the three target Associate Diploma/Diploma courses which are the focus of research for this project (Course occupation links in respect to these courses are discussed in more detail in Section 2.3 below). For example:

- The occupations of Accountant (ASCO Unit Group 2701) or Accounting Clerks (ASCO Unit Group 5301) seems likely to be the major potential outcomes from the Associate Diploma in Accounting. These occupations come within the Professional Major Group of ASCO or Major Group 5, Clerks.
- The occupation of Restaurant and Catering Manager (ASCO Unit Group 1503) seems likely to be the major potential outcome from the Diploma in Hospitality Management. This occupation comes within the ASCO Major Group Managers and Administrators.
- The occupation of Mechanical Engineering Associates and Technician (ASCO Unit Group 3205) is the major potential outcome from the Associate Diploma in Mechanical Engineering. This occupation comes within the Paraprofessional Major Group in ASCO.

That is, for the *target* Associate Diploma/Diploma courses, which represent the focus of this study, there is no consistent occupational outcome, in forms of a common grouping, based on educational criteria, available from the current ASCO Dictionary of Occupations. This difficulty is not however, restricted to the target courses under discussion. Other examples of courses offered by DETAFE in South Australia where occupational outcomes are not oriented towards ASCO Major Group 3, Paraprofessionals, include:

- the Diploma in Tourism (focused towards tourism management);
- the Associate Diploma in Art (which aims to produce individuals who meet the requirements of a professional artist-craftsperson so that graduates are able to undertake employment in art and craft activities and industries); and
- the Local Government Administration Associate Diploma, which aims to provide relevant knowledge and skills in local government operations at the level of Chief Executive Officer.

This list is not intended to be exhaustive, but simply to further illustrate the point, i.e. there is a lack of common occupational outcomes, in terms of occupational levels, in existing ASCO classifications.

Conversely, while ASCO suggests that most occupational outcomes from middle level training come within the Paraprofessional Major Group in ASCO, it is possible to enter a wide variety of paraprofessional occupations *without* undertaking an Associate Diploma or Diploma course. For example, it is possible to become a Police Sergeant (classified in Major Group 3 Paraprofessionals, in ASCO) by undertaking a TAFE Certificate course rather than an Associate Diploma or Diploma course. Similarly, it is possible to become a Performing Arts Support Worker (also classified under Major Group 3, Paraprofessionals) by undertaking a Certificate level course. By contrast, becoming a Registered Nurse in South Australia now involves undertaking a degree at a University. Despite this, nurses are included in the Paraprofessional Major Group in ASCO.

It is therefore possible to become a Paraprofessional without undertaking an Associate Diploma or Diploma course.

The advice of the Australian Bureau of Statistics was requested concerning these apparent anomalies. The ABS indicated that it was aware of such anomalies, and in respect of Accounting stated that at the time the ASCO structure was researched (1978-1985) fieldwork indicated that a paraprofessional qualification was not essential for entry into an accounting occupation. An accountancy type occupation was not placed at the paraprofessional level because an occupation could not be found that required an *Associate Diploma in Accounting with tasks distinct from those performed by accountants on the one hand and accounts clerks on the other.*[4]

Another criticism of ASCO which has relevance in the context of this project is ASCO's concept of Associates. Within ASCO, the concept of Associates as a discrete group in the national labour market appears to have evolved from considerations of technical support services to specific technical professional occupations rather than broader considerations of support to a wide range of professions (i.e. including professions which are not technically oriented). The general description of an Associate's duties in ASCO is as follows:

> *Provides complex technical support in medicine, science and engineering, working in association with scientists, engineers or medical professionals.*[5]

Unfortunately, this definition gives no reference to areas like accounting or business management, where many Associate Diploma courses are oriented.

ASCO is, of course, currently being reviewed by the Australian Bureau of Statistics and these perceived problems may be resolved in the new edition of ASCO. At the time of writing this report, however, the Australian Bureau of Statistics, when contacted about the problems discussed above, indicated that as the ASCO review was only in its early stages it was not possible to anticipate its results, whether flowing from award restructuring, or from changes to training policy or practice.

However, in summary, at the present time ASCO does not provide a consistent occupational outcome for persons undertaking Associate Diploma/Diploma courses. It is possible to complete an Associate Diploma or Diploma course and work in occupations outside Major Group 3, Paraprofessionals. Conversely, it is possible to become a paraprofessional without undertaking an Associate Diploma course.

The lack of consistency in the Australian Standard Classification of Occupations concerning the level, within ASCO, of potential occupational outcomes from undertaking an Associate Diploma or Diploma through TAFE is concerning. The lack of consistency suggests that, in respect to official occupational nomenclature, it is not possible to readily identify the existence of an autonomous or independent employment base for persons undertaking these courses.

2.3 Course - Occupation Links in Respect to the Target South Australian DETAFE Associate Diploma/Diploma Courses

- ***Introduction***

This subsection identifies the major likely occupational outcomes in ASCO arising from undertaking the three target courses which form the focus of discussion in this report, the Associate Diplomas in Accounting and Mechanical Engineering and the Diploma in Hospitality Management offered by SADETAFE. Section 2.3 also identifies the industries where most persons in these occupations are employed in South Australia.

The aims of the three South Australian DETAFE courses which are the focus of this study are detailed in Appendix 1 of this report.

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[4] From correspondence from Mr Dietmar Ott, Assistant Director, Labour Classifications and Standards Section, Australian Bureau of Statistics, of 17/3/1992.

[5] Department of Employment and Industrial Relations and the Australian Bureau of Statistics (1987) *Australian Standard Classification of Occupations.* p.xiv.

The major likely occupational outcomes for persons undertaking the target South Australian DETAFE Associate Diploma/Diploma courses, based on the aims of the target courses and occupational definitions incorporated in the Australian Standard Classification of Occupations, are shown in Table 1 below. It should be noted, however, that as there are no specific links between vocational training and employment in respect to these occupations. It is possible to be employed in these occupations without vocational training by TAFE. In addition, persons undertaking Associate Diploma or Diploma courses may well work in areas unrelated to their TAFE studies.

Table 1: Course - Occupation Links for Target SADETAFE Associate Diploma/Diploma Courses

SADETAFE Course	*Major likely Occupational outcome*
Associate Diploma in Accounting	Accountants (ASCO 2701) Accounting Clerks (ASCO 5301)
Associate Diploma in Mechanical Engineering	Mechanical Engineering Associates and Technicians (ASCO 3205)
Diploma in Hospitality Management	Restaurant and Catering Managers (ASCO 1503) Accommodation and Tavern Managing Supervisors (ASCO 1505)

Source: Australian Bureau of Statistics and Department of Employment and Industrial Relations, (1987) *Australian Standard Classification of Occupations.*

A detailed definition of the duties involved in each of these occupations, as set out in the Australian Standard Classification of Occupations, is provided at Appendix 2 of this report.

As shown in Table 1 above, there are clearly defined occupational outlets in the Australian Standard Classification of Occupations in respect to persons completing the Associate Diploma in Mechanical Engineering and the Diploma in Hospitality Management.

The most contentious potential occupational outcome, in terms of official occupational nomenclature, is that with respect to those persons who have completed the TAFE Associate Diploma in Accounting. Persons with this level of skill are arguably *over qualified* for positions as Accounting Clerks, which, according to ASCO has as its entry requirement a two year certificate and 2-5 years clerical or banking experience. On the other hand, there has been considerable controversy in the past as to whether Associate Diploma holders have sufficient breadth or depth of skills to be considered as having professional status. A recent report by the Trade Practices Commission on the accountancy profession, which was published in 1991, indicated that Associate Diploma holders work in many areas of accounting and stated that:

> ". . . it is not apparent that certification of the generic title *accountant* can be readily equated with specified skills without restricting competition and choice in the market.
>
> Having regard to the wide range of practitioners with differing degrees of expertise and specialisation operating in the field, the major impediment to this approach would appear

> to be the question of a suitable definition of what minimum qualifications and experience ought to be required before a person is entitled to use the title. The fact that there is no universally accepted definition of what qualifications are required of an accountant presents real difficulties in any certification approach of the generic title.
>
> The restrictions imposed by the ASCPA and ICAA in relation to the practise entities and descriptions such as *public accountant and accountant* may be viewed as attempts at certification of the generic title of *accountant*. The competition difficulty raised by this approach is that it is based upon each professional body's interpretation of what constitutes an accountant and this does not always accord with the range of services actually demanded in the market as accounting services.
>
> The Joint Working Party has stated that the professional bodies do not wish to pursue the certification of the *accountant* title. Apart from the practical difficulties given the generic nature of the term *accountant*, the professional bodies have acknowledged the possible anti-competitive implications of any exclusive rights to the use of the name.
>
> To reserve the generic title of *accountant* only to those with an arguably higher standard of educational qualifications, thus preventing those with a different standard practising under that title, would appear to apply a definitional standard of accountancy which is out of step with market reality.
>
> The development by professional bodies of speciality titles to identify the level of skill and expertise which they possess and believe serves the market best, while at the same time allowing others to use the more general title, would appear to present fewer difficulties. This approach is, of course, what presently occurs.
>
> *Accordingly, the Commission recommends that there be no certification of the generic term accountants.*" [6]

That is, it is possible for persons holding the SADETAFE Associate Diploma in Accounting to work in public accounting practices and describe themselves as accountants.

The issue of the labour-force status of persons undertaking TAFE Associate Diplomas in Accounting was also addressed by Professor W.P. Birkett, in his study entitled 'The Demand For, and Supply of Education for Paraprofessional Accountants'. While Professor Birkett defines para-professional accountants as "persons who are eligible for membership of the Institute of Affiliate Accountants in Australia or who have equivalent status as a result of completion of an appropriate program of instructions (such as, an Associate Diploma in Business Studies from a College of Advanced Education or Technical College or a Certificate in Accounting or Commerce from a Technical College[7] his discussion of the labour market role of persons with middle level training suggests there is no consensual view of their likely activities in the business community. He concludes:

> "The issue of labels has bedevilled discussion of paraprofessional accountants and their work from the outset. This issue is compounded by the controversy surrounding the disintegration of the concept of a two-tier profession . . . There are those who observe that the label is not used in practice, and so deny the existence of what it might signify. And there are those who reject the use of the label in any context, and all that it might signify. The problem is to get beyond both the apparent emptiness of the label and its emotional connotations - to probe for the existence and nature of a form of work that might, for

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[6] Trade Practices Commission, (1991) *A study of the accountancy profession, draft report*. p. 211

[7] Birkett, W.P. (1991) *The Demand For, and Supply of Education for Para-Professional Accountants, Task Force for Accounting Education in Australia*. p. 27.

convenience, and for present purposes simply be labelled 'paraprofessional accounting'[8]

In summary, there are clear occupational outlets in ASCO for persons undertaking the Associate Diploma in Mechanical Engineering and the Diploma in Hospitality Management. However, the situation is less clear for persons undertaking the Associate Diploma in Accounting. Graduates from the Associate Diploma in Accounting may find employment at the professional, or clerical level, but there is no clearly defined paraprofessional level of employment in ASCO for accounting students.

■ ***Which Industries are Accountants and Accounting Clerks Employed in?***

Accountants are employed in a wide variety of industries, as all areas of the economy require accounting services. However, a significant proportion of accountants are employed in the following industries in the Finance, Property and Business Services Industry Division, in the following subdivisions, according to data derived from the 1986 ABS Census of Population and Housing:

- The Legal and Accounting Services subdivision, including Accounting Services (ASIC Class 6372), and Data Processing Services (ASIC Class 6381). More than one third of employed accountants worked in this subdivision in South Australia as at 30th June 1986.

- Finance and Investment (Central Banking, (ASIC Class 6141), Trading Banks (ASIC Class 6142), Development Banks (ASIC Class 6143), Savings Banks (ASIC Class 6144), Permanent Building Societies (ASIC Class 6151), Terminating Building Societies (ASIC class 6152), Credit Unions (ASIC Class 6153), Authorised Money Market Dealers (ASIC Class 6154), Money Market Dealers n.e.c. (ASIC Class 6155), Financiers n.e.c. (ASIC Class 6156), Unit Trusts, Land Trusts and Mutual Funds (ASIC class 6161), Holding Companies n.e.c. (ASIC Class 6162), Holder - Investors n.e.c. (ASIC Class 6163), Stock Exchanges (ASIC Class 6171), Services to Finance and Investment n.e.c. (ASIC Class 6172)).

- The Insurance and Services to Insurance subdivision, including Life Insurance (ASIC Class 6231), Superannuation Funds (ASIC Class 6232), Health Insurance (ASIC Class 6233), General Insurance (ASIC Class 6234) and Services to Insurance (ASIC Class 6240),

Accounting clerks, like Accountants, are employed in small numbers in many industries throughout the State economy. The main employing industries in 1986, in a South Australian context, included the Finance, Property and Business Services Division (which employed 20.5 per cent of Accounting Clerks in South Australia); the Wholesale and Retail Trade Industry Division (which employed 13.2 per cent of Accounting Clerks in South Australia); and the Community Services Industry Division (which employed 11.6 per cent of Accounting Clerks in South Australia).

■ ***Which Industries are Mechanical Engineering Associates Employed in?***

Data from the 1986 ABS Census of Population and Housing indicates that, in South Australia, considered by industry, the largest numbers of Mechanical Engineering Associates are employed in the Manufacturing Industry Division, largely in the Other Machinery and Equipment, Transport Equipment and Basic Metal Products subdivisions (ASIC Codes 33, 32 and 29 respectively). However, employment of Mechanical Engineering Associates is also significant in the Property and Business Services subdivision, within the Finance Property and Business Services Division, and in the Other Community Services Subdivision (in the Research and Scientific Institutions Industry, ASIC Class 8461).

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[8] Ibid., p.75.

- *Which Industries are Hospitality Managers Employed in?*

While restaurant and catering managers are employed in a variety of industries throughout the South Australian economy (e.g. in managing staff canteens in the manufacturing sector, or managing cafeterias in large retail stores) in South Australia employment is concentrated in the Restaurant, Hotels and Clubs subdivision in the Recreation, Personal and Other Services Industry Division.

2.4 Recognition of Middle Level Training in Industrial Awards Relating to Target Occupations Prior to Award Restructuring

This sub-section discusses the extent to which middle level TAFE training was recognised in industrial award occupational definitions in respect to the occupations identified in Section 2.3 above for which the target South Australian DETAFE courses provide vocational training.

This analysis represents a further important test in regard to the existence of an autonomous or independent employment base for graduates of the target SADETAFE courses, as specific and identifiable occupations which have an autonomous or independent employment base are generally defined in relevant industrial awards as well as official occupational nomenclature.

Coverage of the main target occupations being discussed in this study under industrial awards varies substantially (i.e. Accountants, Accounting Clerks, Mechanical Engineering Associates, Technicians and Hospitality Managers, the major potential occupational outcomes arising from undertaking the DETAFE Associate Diploma in Accounting, the Associate Diploma in Mechanical Engineering and the Diploma in Hospitality Management).

- *Accountants*

Accountants working in public practice (i.e. persons working as public accountants where over one third of persons working as accountants are employed, as discussed in Section 2.3 above) are *generally not employed under industrial awards* according to representatives of the National Institute of Accountants and the Australian Society of Certified Practicing Accountants. Matters such as salaries and terms and conditions of employment are generally negotiated on an individual basis between employers and employees.

A significant proportion of accountants are, however, not employed in public practice. Accountants who are not employed in public practice may be employed under industrial awards in commerce including awards such as the Australian Telecommunications Administrative/Clerical/Executive Staff (Salaries and Specific Conditions of Employment) Award, the Bank Officials (Federal) 1963 Award, the Bank of Queensland Award 1988, the Credit Union for Bank Employees Limited Award 1987 and the Commonwealth Bank of Australia Officers Award 1990 and in the public sector. For example, persons working as Accountants who are employed by the South Australian Public Service are employed under the conditions of the South Australian Government Management and Employment Act. In these circumstances the duties of an accountant may be defined in particular industrial awards and the educational qualifications required to work at different levels may be incorporated into the definition of the occupation.

It is also important to appreciate that the term "accountant" may also tend to imply different things in different industries. For example, in the banking industry, persons working as bank branch accountants may have markedly different duties to those of an accountant in general accounting industry practice. For example, bank accountants may be involved in reviewing credit applications and undertaking credit collection activities where loans are in arrears. In context of the banking industry it is also noteworthy that, prior to award restructuring in the banking industry, the position of branch accountant was the first step in the classified career structure, and progression to this level was the result of period of service, without reference to academic qualifications.[9] As a consequence, reference to "accountants" in particular industrial awards does not necessarily imply that a person with this title in fact works as an accountant or has vocational training as an accountant. Hence while these persons may be referred to under the title "accountants" in certain industrial awards, their coverage under these awards has no relevance in the context of this paper.

In summary, it *therefore seems reasonable to suggest that the occupation of accountant (and middle level vocational training in accountancy) is not widely acknowledged in industrial award occupational classifications*, with respect to the majority of persons employed in public practice in the accounting industry. There are, however, significant numbers of persons employed as accountants outside the accounting industry (e.g. commerce or in the South Australian State Public Service under Circular 27 issued by the Commissioner for Public Employment) who are exceptions to this generalisation.

- ***Accounting Clerks***

Accounting clerks work under a wide variety of awards, e.g.:

- Clerks, SA Award
- Clerks' Retail Award (S.A.)
- Clerks' Metal Industry Award (S.A.)
- Clerks' Club, Hotels and Motels Award, 1978 (South Australia).

Traditionally, these awards have not placed emphasis on defining the vocational training requirements needed to work in particular occupations. This can be illustrated by reference to occupational definitions under the Clerks' Club, Hotels and Motels Award, 1978 (South Australia). As shown in Exhibit 1, the Award definitions do not specify vocational training requirements, i.e. the Associate Diploma in Accounting is not specified as a required or desired qualification in occupational definitions under the Award.

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[9] Manning H. (1990). 'Award Restructuring in the Australian Banking Industry' in the *Journal of Industrial Relations*, September, 1990. Vol. 21, No. 3, p.386.

Exhibit 1: Occupational Definitions under the Clerks' Club, Hotels and Motels Award, 1978, South Australia.

Group 1

"Receptionist" means a clerk who, as well as receiving guests, for a substantial portion of that person's time performs a number, or all, of the following functions:

> Recording particulars regarding guests, entering charges to be made to guests, preparing accounts for guests and receiving payment therefore, operating a switchboard and other clerical duties.

"Dining Room Cashier" means a clerk who, for a substantial portion of the person's time performs the following functions:

> Preparing dockets regarding meal charges to be made to guests or making entries in connection therewith, receiving payments from guests for meals, entering debits on guests' accounts for meals and other clerical duties.

"Clerk" means clerk who is required to carry out routine clerical tasks and is not required to make other than minor decisions relative to that employee's work.

Group II

"Clerk General" means a clerk working alone in the office who attends to numerous clerical functions, e.g. reception of guests, operates a switchboard and carries out general clerical functions as required by the management. It is envisaged such clerk would be employed only in the smaller establishments.

Group III "Senior Clerk" means a clerk who is required to carry out work of a higher standard than the work of clerks in Groups I and II and is responsible for work to the manager or executive.

"Wages Clerk" means a clerk whose sole function is the keeping of wage records, the preparation of payrolls and associated duties. It is envisaged such a clerk would be employed only in the larger establishments.

"Purchasing Clerk" means a clerk whose sole function is to purchase or arrange the purchase of goods or services required and attend to associated clerical functions. It is envisaged such a clerk would be employed only in the larger establishments.

Source: South Australian Department of Labour.

- *Mechanical Engineering Associates.*

Mechanical engineering classifications, even prior to award restructuring, were relatively closely defined under the Metal Industry Award. For example, the roles of draughtpersons, one area in which Mechanical Engineering Associates worked, was relatively well defined in Metal Industry Awards prior to award restructuring. However, as pointed out by the Metal Trades Industry Association in *Award Restructuring in the Metal and Engineering Industry*, "The current Metal Industry Awards is unsuitable . . . some impediments are . . .

(iv) the non-existence of any structured career paths;

(v) lack of training mechanisms".[10]

The lack of emphasis on vocational training in the Metals Industry Award prior to award restructuring is illustrated by the following two excerpts from the Award, circa 1984. While the occupational definitions specified the duties involved in occupations covered under the Award, vocational training requirements were largely not specified in the Award, (see Exhibit 2) except in the case of special class tradespersons (see Exhibit 3 below).

Exhibit 2: Definitions of Certain Occupations under the Metal Industry Award, 1984, General Engineering

"Fitter" means a tradesman of one or all of the following classes: Mechanical fitter, electrical fitter, pipe fitter on refrigeration work and/or high pressure work which includes live steam and hydraulic press work, points and crossings fitter and window frame fitter.

"Inspector" means a tradesman who is engaged to inspect components while in production or upon completion as to their conformity with a specified standard of quality and accuracy and who is authorised to exercise and does exercise a discretion to pass components which may not conform to that standard.

"Locksmith" means a tradesman engaged in the making and/or repairing of locks and the mechanism of safe and strong-room doors.

"Machinist - 1st Class" means a tradesman who is partly or wholly engaged in setting up and operating the following machines: lathe, boring machine, milling machine, planning machine, shaping machine, slotting machine, precision grinding machine and a drilling machine where the operator uses the same precision tools as fitters or turners.

"Machinist - 2 Class" means an adult employee not engaged as a tradesman who is not required to work from drawings or prints or to do precision work but who is engaged in operating or in setting up and operating all machines, other than a drilling machine, enumerated in the definition of 1st class machinist.

"Machinist - 3rd Class" means an adult employee other than a process worker who operates any power-driven machine for which a rate is not elsewhere prescribed in this award and without limiting the scope of the foregoing includes such as employee operating any of the following: nut, bolt, rivet or dog spike.

Source: Metal Industry Award 1984 Part I.

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[10] Metal Trades Industry Association and Engineering Employers Association of South Australia, (1988) *Award Restructuring in the metal and engineering industry. The way to proceed*, p.1

Exhibit 3: Definition of Duties of Mechanical Special Class Tradespersons in the Metal Industry Award 1984.

"Mechanical Tradesperson - Special Class" means a mechanical tradesperson who is mainly engaged in any combination of installing, repairing and maintaining, testing, modifying, commissioning or fault finding on complex machinery and equipment which utilises hydraulic and/or pneumatic principles and who, in the course of such work, is required to read and understand hydraulic and/or pneumatic circuitry which controls fluid power systems, the performance of which work requires the use of additional knowledge as herein defined.

For the purpose of this definition "additional knowledge" means knowledge in excess of that gained by the satisfactory completion of the appropriate technical college trade course which has been acquired by the tradesperson by virtue of their:

(a) having had a minimum of two years on-the-job experience as a tradesperson working predominantly on fluid power systems as will enable the tradesperson to perform such work under minimum supervision and technical guidance; and

(b) having satisfactorily completed a prescribed post trades course or the achievement to the satisfaction of the employer of a comparable standard of skill and knowledge by other means including in-plant, training or on-the-job experience referred to in (a) above.

For the purpose of this definition:

(i) "mainly engaged" means regularly over a period or intermittently during a week:

(ii) the following courses are deemed to be prescribed post-trade courses:

Course		Syllabus number
Victoria -	Industrial Hydraulics	-
	Industrial Pneumatics	-
	Fluid Power Technology	-
South Australia -	Hydraulics	-
	Pneumatics	-
	Fluid Power	-
Tasmania -	Industrial Pneumatics	85-461
	Industrial Hydraulics	85-450
Queensland -	Serve Course in Fluid Power	CN 859
New South Wales -	Industrial Hydraulics	5271
	Industrial Pneumatics	5268

Source: Metal Industry Award 1984 - Pt.1.

In summary, prior to award restructuring, the Metals Industry Award placed, at best, limited emphasis on defining occupations at a skill level which required completion of an Associate Diploma in Mechanical Engineering. This lack of emphasis would appear to suggest that there was not a strong autonomous or independent employment base in existence for persons possessing an Associate Diploma in Mechanical Engineering.

- ***Hospitality Managers***

The hospitality industry, both in South Australia and nationally, is dominated by small businesses. Nationally, small businesses (enterprises employing fewer than 20 persons) accounted for 93 per cent of cafe's and restaurants in 1986/87 (latest data available at the time of writing). Small businesses also account for a significant proportion of businesses in the hotels and bars industry.[11] In 1986/87 small businesses accounted for 80 per cent of all enterprises in this industry in Australia (again, latest data available at the time of writing).[12]

As might be expected, given the high proportion of small businesses in the cafè and restaurants as well as the hotel and bars industries there are a significant proportion of working proprietors and partners in all of these industries. Some 11.9 per cent of persons working in the cafè and restaurants industry and 5 per cent of persons working in the hotels and bars industry in 1986/87 in Australia were working proprietors. Generally speaking, it would appear reasonable to assume that most of these persons, working in hospitality management positions would not be working under award conditions.

Notwithstanding these qualifications, a substantial proportion of persons working in the hospitality industry in management positions are employed under industrial awards. The major industrial awards under which persons are employed in South Australian hospitality industry include:

- The Hotels, Resorts and Hospitality Industry Award 1990 (Federal Award);
- Hotel Managerial Staff (Federal Award), 1974;
- Cafès and Restaurants (South Australia) Award;
- Hotels, Clubs etc. Award, South Australia;
- Motels (South Australia) Award; and the
- Clerks' Club Hotels and Motels Award, 1978 (South Australia).

In a South Australian context, the most significant awards (from the perspective of number of persons employed under particular awards) are probably the State awards cited above, although management personnel are largely recognised in the Hotel Management Staff (Federal Award) 1974. Prior to award restructuring, these State awards did not place emphasis on defining the vocational qualifications required to work in hospitality management positions or at lower classification levels. A similar position existed in regard to Federal Awards, as illustrated from the following excerpt from the Hotel Managerial Staff (Federal Award), 1974 (i.e. prior to award restructuring). While this award defines the duties of various levels of managerial staff and thus establishes a basis for remuneration, it neither defines nor suggests the nature of vocational qualifications required to work in hotel management positions, as shown in Exhibit 4 below.

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[11] Australian Bureau of Statistics (1988) *Cafes and Restaurants Industry, Australia*, 1986/87, Cat. No.8655.0.

[12] Australian Bureau of Statistics, (1988) *Hotels and Bars and Accommodation Industries, Australia, 1986/87*, Cat. No. 8656.0.

Exhibit 4: Definition of Hospitality Management Positions under the Hotel Management Staff (Federal Award) 1974.

6. Definitions

(a) "Hotel Manager" means an employee who is appointed by the employer to undertake the supervision and control of the whole day to day activities of a single hotel.

(b) Assistant Hotel Manager, Class 1, which classification for the purposes of this Award shall be referred to as "Assistant Manager", except in Residential Hotels where the classification shall be referred to as "First Assistant Manager", means an employee who is appointed by the employer, or by the Hotel Manager where authorised to make such appointment, to act as an assistant to the employer or Hotel Manager.

(c) Assistant Hotel Manager, Class 2, which classification for the purposes of this Award shall be referred to as "Special Manager" means an employee who is appointed by the employer, or by the Hotel Manager where authorised to make such an appointment, to manage a section or sections of the Hotel's activities.

(d) Assistant Hotel Manager, Class 3, which classification for the purposes of this Award shall be referred to as "Assistant Specialist Manager" means an employee appointed by the employer, or by the Hotel Manager, where authorised to make such an appointment, to assist a Special Manager.

(e) Assistant Hotel Manager, Class 4, which classification for the purposes of this Award shall be referred to an "Duty Manager" means an employee who is not elsewhere classified in this Award, employed in a Residential Hotel, appointed by the employer, or by the Hotel Manager where authorised to make such an appointment.

(f) "Part Time Manager/Part time Assistant Manager, Class 1" means an employee who is appointed by the employer, or by the Hotel Manager where authorised to make such appointment, and who is employed for a lesser period than 80 hours in 14 consecutive days. Part Time Assistant Manager, Class 1, may be deemed to include the spouse of the Hotel Manager.

Source: Australian Hotels Association, Australian Hotelier, February 1991.

In summary, prior to award restructuring the nature of vocational training required to work in hospitality management positions was not specified in relevant industrial awards, suggesting that, at least in regard to industrial relations considerations, an autonomous or independent employment base for persons possessing a Diploma in Hospitality Management did not exist in the hospitality industry.

- ***Conclusions***

Prior to award restructuring, there appears to have been limited emphasis on vocational training in the Associate Diploma in Mechanical Engineering or the Diploma in Hospitality Management in relevant industrial awards. This in turn suggests that there is some question as to whether an autonomous or independent employment base existed for persons with these qualifications. Given that persons working as accountants in public practice generally do not work under industrial awards it is not possible to judge the existence of an autonomous or independent employment base for the group against this criteria. However, in respect to Accounting Clerks, coming under State industrial awards, it is clear that, prior to award restructuring, the Associate Diploma in Accounting was not regarded as a required qualification to work in this occupation.

2.5 Recognition of Middle Level Training in Industrial Awards Relating to Target Occupations Post Award Restructuring

- *Introduction*

As discussed in Section 2.4 above, prior to award restructuring there were limited references to middle level training in industrial awards in respect to the likely occupational outcomes arising from undertaking the SADETAFE Associate Diploma in Accounting or Mechanical Engineering or the Diploma in Hospitality Management.

However, better identification and articulation of career paths has been one of the major objectives of award restructuring, from the viewpoint of both employers and the union movement. This suggests that, after award restructuring, middle level training should be more widely recognised in industrial awards than was previously the case. In turn, a more independent employment base should emerge for persons with this level of vocational training.

Award restructuring has been one of the most significant developments in Australian industrial relations in the post World War II period. Proponents of the concept commonly argue that award restructuring has the potential to significantly improve industrial relations in Australia, thus leading to marked improvement in Australia's international competitiveness. What then is award restructuring? One definition, by the Metal Trades Industry Association, a major employer organisation, states:

> *A key mechanism in labour market reform involving the fundamental review of awards with a view to implementing measures to improve the efficiency of industry and provide workers with access to more varied fulfilling and better paid jobs. The measures include but are not limited to:*
>
> - *Establishing skill-related career paths which provide an incentive for workers to continue to participate in skill formation;*
>
> - *Eliminating impediments to multi-skilling and broadening the range of tasks which a worker may be required to perform;*
>
> *Creating appropriate relativities between different categories of workers within the award and at enterprise level;*
>
> - *Including properly fixed minimum rates for classifications in awards, related appropriately to one another, with any amounts in excess of these properly fixed minimum rates being expressed as supplementary payments;*
>
> - *Updating and/or rationalising the list of respondents to awards;*
>
> - *Addressing any cases where award provisions discriminate against sections of the workforce.*[13]

At the time of writing, while there has been substantial progress towards award restructuring, especially in the metal trades, the award restructuring process is yet to be finalised. Against this background, the impact of award restructuring on the employment base for those occupations for which vocational training is provided by the three target South Australian DETAFE courses will not necessarily be faithfully repeated for other occupations which are not analysed in this study. That is, it would be unwise to make sweeping generalisations concerning the effects of award restructuring from the following discussion in regard to those occupations which represent the focus of this study.

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[13] Metal Trades Industry Association and Engineering Employees Association of South Australia (1988) op. cit. p.36.

- ***Award Restructuring in Regard to Occupations for Which the Associate Diploma in Accounting Provides Vocational Training.***

As outlined in Section 2.3 above, the major potential occupational outcomes arising from undertaking the Associate Diploma in Accounting are employment as an Accountant or Accounting clerk. As then discussed in Section 2.4, *persons working as accountants working in general practice are generally not employed under industrial awards.* Thus the award restructuring process taking place in Australia since the late 1980s seems unlikely to have had any significant direct impact on the employment base available to persons working in accounting in general practice.

Award restructuring, to date, has also not influenced the employment base available to accounting clerks in South Australia (i.e. by better defining the duties of particular occupations and specifying the required vocational training). This reflects the fact that award restructuring is not yet complete in respect to the South Australian State Clerks awards under which accounting clerks are generally employed.

However, as discussed in Section 2.4 above, a significant proportion of graduates from the Associate Diploma in Accounting work in areas such as commerce, banking and government which are subject to a wide variety of industrial awards, such as the Australian Telecommunications Commission Administrative/Clerical/Executive Staff Award, the Bank of Queensland Award and the Commonwealth Bank Officers Award. The Associate Diploma in Accounting, for example is now recognised under the South Australian Public Service Award under Commissioner's Circular 27 for entry to middle level accounting positions, following award restructuring.

Thus, although many accounting personnel in general practice are not employed under industrial awards and hence are not directly influenced by award restructuring, award restructuring has probably resulted in greater recognition of the Associate Diploma in Accounting in other industries, thus enhancing the "legitimacy" of the employment base existing for persons with this qualification.

- ***Award Restructuring in Regard to Occupations for Which Vocational Training is Provided by the Diploma in Hospitality Management***

As noted in Section 2.4 above, the major award(s) under which persons are employed in the hospitality industry in South Australia include:

- the Hotels, Clubs etc Award;
- the Cafes and Restaurants (South Australia) Award;
- the Motels (South Australia) Award;
- the Clerks', Clubs, Hotels and Motels (South Australia) Award.

The major award (in terms of employment in South Australia), the Hotels, Clubs etc. Award, has now been restructured. New terms and conditions under the new Award have come into effect. The new Hotels, Clubs etc Award makes explicit reference to the nature of training required to work at each level of occupational classification under the Award. For example, the occupational classification for a Guest Service Supervisor/Level 6 is as follows:

"(vi) Guest Service Supervisor/Level 6 shall mean an employee *with the appropriate level of training* including a supervisory course, who supervises, trains and co-ordinates the work of employees engaged in a housekeeping department"[14]

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[14] South Australian Industrial Relations Commission (1991) *Hotels, Clubs etc Award*, p. 3

The italicised phrase, "with the appropriate level of training" is defined in Clause (g) of the Award, which states:

"(g) Appropriate level of training shall mean:

(i) Completion of a training course deemed suitable according to guidelines issued through Tourism Hospitality Training South Australia for that particular classification, (refer Schedule 4.).

After June 1 1991 such course to be accredited by the Australian Hospitality Review Panel.

(ii) That the employee's skills have been assessed to be at least the equivalent of those attained through the suitable course described in (i), such assessment to be undertaken by a qualified skills assessor as defined by Tourism Hospitality Training South Australia;....."[15]

The Australian Hospitality Review Panel, a subsidiary of Tourism Training Australia, has issued a directory of programs providing training, including TAFE training, for each skill level recognised under this Award.

Similarly, under the Motels (South Australia) Award, each classification is defined according to the level of training required. For example, the definition of a Hospitality Services Grade 2 employees states:

"(c) Hospitality Services Grade 2:

Shall mean an employee who has achieved the appropriate level of training and is engaged in one or more of the following....."[16]

Again, the Australian Hospitality Review Panel has responsibility for declaring which programs provide the correct level of training for each level. The specific tying of occupational training by TAFE to particular occupational classifications would therefore seem, in the Hospitality industry at least, to "legitimise" the employment base existing in respect to middle level occupations by comparison with the situation prior to award restructuring (although award restructuring has apparently still yet to occur in respect to the Cafe's and Restaurants (South Australia) Award.

However, while these awards, after award restructuring, make explicit linkages between training and occupational classifications from introductory levels to advanced skill levels and supervisory skill levels, *they do not make reference to management classifications and training requirements*. These occupations are defined under the Hotel Managerial Staff Award, a Federal award, which has yet to be restructured. However, if the skill based model used in restructuring State Awards is followed at a Federal level, this suggests that the training requirements for particular occupational classifications is likely to be more closely specified than has been the case in the past.

- ***Award Restructuring in Regard to Occupations for Which Vocational Training is Provided by the Associate Diploma in Mechanical Engineering.***

As discussed in Section 2 above, the major occupational outlet for persons undertaking the Associate Diploma in Mechanical Engineering is the occupation of Mechanical Engineering Associates and Technicians. Persons employed as Mechanical Engineering Associates work in many areas of the State economy. However, most work in the manufacturing sector, generally under the Metals Industry Award, (although employment is also significant in the vehicle industry).

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[15] Ibid., p.4

[16] South Australian Industrial Relations Commission, (1991), *Motels (South Australia) Award Schedule 2, Definitions.*

As indicated above, the process of award restructuring is relatively advanced in the metals industry, and there has been substantial agreement between employer groups and trade union on the need for change. The essential features of the new award is that the new structure combined all previously existing structures into a single structure of 14 classification levels based on a concept of a hierarchy of skills. A publication issued jointly by Metal Trades Industry Association of Australia, the Australian Chamber of Manufactures, and the Metal Trades Federation of Unions pointed out that:

> *The new classification structure is based on definitions which specify the skill, competency and training requirements for each classification level.*
>
> *These classification levels are based on the national qualifications outlined by the Australian Council of Tertiary Awards (ACTA).*
>
> *The classification structure is accompanied by a set of skill and competency standards which indicate the skills an employee should be capable of performing at each level of the classification structure. It is important to understand that all skills and training requirements under the new award structure are based on competency standards issued by the National Training Board.*
>
> *Individual employees will no longer be identified by specific classification titles which describe narrow job functions or technologies such as "fitter", "welder", "storeman" or "process worker". Rather, employees will be identifiable by their levels of training and skill. For example, a fitter will be identified as and "Engineering Tradesperson (Mechanical) Level I" (C10) and a process worker will be identified as an "Engineering Production Employee Level II" (C13). . .*
>
> *The new classification structure provides definable career paths for employees. Through appropriate training and satisfaction of the skill and competency standards for each classification level, employees will be able to progress up the classification structure. Movement up the career path may involve cross-skilling or further specialisation.*[17]

The most recent version of the Federal Metal Industry Award available at the time of writing was that for April 1991 i.e. post award restructuring (State Metal Industry Awards are based on Commonwealth awards). The Federal Metals Industry Award now closely defines the duties of particular classifications, the minimum training requirements for each classification and the wage relativity to the C1O classification (i.e. tradesperson). The training requirements for each classification under the Metals Industry Award is set out in Exhibit 5 below.

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[17] Metal Trades Industry Association, Australian Chamber of Manufactures, Metal Trades Federation of Union, (1990) *Award Restructuring Implementations Manual for the Metal and Engineering Industry, Implementing a New Classification Structure,* 'What is Award Restructuring' pp.3,4.

Exhibit 5: Metal Industry Award 1991 - Classification Structure

Wage group	Classification title	Minimum training requirement	Wage relativity to C10 after full minimum rate and broad-banding adjustments
C1	Professional engineer Professional scientist	Degree	N/A
C2(b)	Principal technical officer	Diploma or formal equivalent	160
C2(a)	Leading technical officer Principal engineering supervisor/trainer/co-ordinator	5th year of diploma or formal equivalent	150
C3	*Engineering associate - Level II*	*Associate Diploma or formal equivalent*	*145*
C4	*Engineering associate - Level I*	*3rd year of Associate Diploma or formal equivalent*	*135*
C5	Engineering technician - Level V Advanced engineering tradesperson Level II	Advanced certificate or formal equivalent	130
C6	Engineering technician - Level Advanced engineering tradesperson Level I	1st year of advanced certificate	125
C7	Engineering technician - Level III Engineering tradesperson - Special class Level II	Post-trade certificate or formal equivalent	115
C8	Engineering technician - Level II Engineering tradesperson - special class Level I	Completion of 66% of qualification for C7	110
C9	Engineering technician - Level I Engineering tradesperson - Level II	Completion of 33% of qualification for C7	105
C10	Engineering tradesperson - Level I Production system employee	Trade certificate or production/engineering certificate III	100
C11	Engineering/production employee - Level IV	Production/engineering certificate II	92.4
C12	Engineering/production employee - Level III	Production/engineering certificate I	87.4
C13	Engineering/production employee - Level II	In-house training	82
C14	Engineering/production employee - Level I	Up to 38 hours induction training	78

Source: Metals and Engineering Workers Union, exhibit to the Australian Industrial Relations Commission, 16 April 1991.

As indicated above, the Metals Industry Award also closely defines the duties of each classification covered under the Award. The duties of an Engineering Associate - Level I and Engineering Associate - Level II are shown in Exhibit 6.

Exhibit 6: Definitions of the Duties of Engineering Associates, Level I and Level II, under the Metal Industry Award, 1991

Wage Group: C4

Engineering associate - Level I
(Proposed relativity to C10 135%)

Engineering associate - Level I means an employee who works above and beyond a technician at level C5 and has successfully completed third year part-time (or 22 modules) of an Associate Diploma or the equivalent level of accredited training and is engaged in:

(i) Making major design drawings or graphics or performing technical duties in a specific field of engineering, laboratory or scientific practice such as research design, testing, manufacture, assembly, construction, operation, diagnostics and maintenance or equipment facilities or products, including computer software, quality processes, occupational health and safety and/or standards and plant and material security processes and like work; or

(ii) Planning of operations and/or processes including the estimation of requirements of staffing, material cost quantities and machinery requirements, purchasing materials or components, scheduling, work study, industrial engineering and/or materials handling processes.

Wage Group: C3

Engineering associate - Level II
(Proposed relativity to C10 145%)

Engineering associate - Level II means an employee who works above and beyond an engineering associate at level C4 and has successfully completed an associate diploma or the equivalent level of accredited training and is engaged in:

(i) Performing draughting, or planning or technical duties which require the exercise of judgment and skill in excess of that required by an engineering associate at level C4; or

(ii) Possesses the skills of an engineering associate - level I in a technical field and exercises additional skills in a different technical field as defined.

Source: Metals and Engineering Workers Union, exhibit to the Australian Industrial Relations Commission, 16 April 1991.

In summary, *after* award restructuring the duties of mechanical engineering associates, and the relevant educational qualifications to work at that level, are closely defined under the Metals Industry Award. This suggests that, in terms of industrial nomenclature, a specific and independent employment base exists for persons undertaking the Associate Diploma in Mechanical Engineering in industries which are respondents to the Metals Industry Award.

- *Conclusions*

After award restructuring, there is now widespread reference to middle level training in award occupational definitions under the Metals Industry Award, suggesting an autonomous or independent employment base now exists for persons undertaking the Associate Diploma in Mechanical Engineering. The evidence is less clear in respect to the other two target courses. While award restructuring in the hospitality industry has incorporated reference to vocational training, award restructuring has yet to occur in awards relating to hospitality management positions.

In addition, there is an important difference between industrial relations policy, and industrial relations practice. The Metal Engineering Workers Union suggests that while larger firms have generally been supportive of the concept of award restructuring, including a greater emphasis on structured career paths and vocational training, smaller firms have tended to be less supportive.

The situation in regard to persons completing the Associate Diploma in Accounting is also unclear. First, many persons working as accountants in public practice do not work under industrial awards. Second, award restructuring has yet to take place in regard to State Clerks awards, under which many clerks are employed.

2.6 Recognition of Prior Learning

- *Introduction*

Recognition of prior learning has become an important issue in the context of award restructuring. Proponents of award restructuring have commonly argued that recognition of learning arising from workplace experience is an important element in better articulating career paths and providing greater opportunities for career advancement. This, in turn, raises two further issues. First, should prior learning (i.e. skills learnt in a workplace setting) be recognised in TAFE and credit allowed in courses where such experience is relevant? Second, does industry recognise experiential learning in deciding occupational classifications?

- *TAFE Recognition of Prior Industrial Learning*

Discussion with SADETAFE lecturing staff suggests that TAFE recognition of prior learning, in respect to the three target courses, is to date apparently relatively limited, (although prior learning can be recognised in TAFE in respect to hospitality in respect to prior learning assessed by Tourism Training Australia). To a large degree, the limited recognition of prior learning in TAFE reflects difficulties for TAFE in assessing the value of vocational training received in an industrial setting. Possibly recognition of prior on-the-job learning will increase in the future when better methodologies are developing for assessing competency standards and these assessment techniques are more widely disseminated and understood in TAFE.

- *Industry Recognition of Prior Learning for Job Classification Purposes*

The following discussion is oriented towards systematic analysis of industry recognition of prior learning through incorporating reference to prior learning in relevant industrial awards. Therefore, the following discussion does not include reference to accountants and accounting Clerks. As has been discussed in the preceding sections, most accountants working in general practice are not employed under industrial awards. While persons working as accountants in other industries are likely to be employed under a variety of industrial awards, no particular award appears to be of major significance as accounting personnel generally represent only a minor proportion of persons employed under these awards. Therefore the following discussion of recognition of prior learning does not include discussion in relation to accountants and accounting clerks.

- ***Recognition of Prior Learning - The Hospitality Industry***

The hospitality industry has already developed procedures by which experiential learning can be assessed. A body known as the Australian Hospitality Review Panel (AHRP) has been set up (under the auspices of the National Tourism Training Board, which trades under the name Tourism Training Australia). The AHRP offers industry accreditation for all programs recognised as meeting industry needs, which may be conducted by TAFE, Universities, private program providers, industry associations or industry "in-house" programs. [18]

Under "Access", the Hospitality Skills Assessment and Recognition Program, persons working in the Hospitality Industry can have skills which they have learnt on-the-job assessed and recognised. Assessment can take place either in the workplace or at an "Assessment Centre".[19] Assessments of on-the-job learning can be used for job classification purposes.

- ***Recognition of Prior Learning in the Metals Industry***

The Metals and Engineering Workers Union (MEWU) strongly supports the concept of recognition of prior industrial learning and employer bodies have also indicated their support for the concept. However to date implementation of this concept has been relatively slow, reflecting to a large degree difficulties in setting competency standards and assessment procedures.

2.7 Recent Growth In Overall Enrolments In Associate Diploma/ Diploma Courses In South Australian and Nationally.

The extent of community acceptance of middle level training can also be gauged from recent changes in enrolments in middle level TAFE courses and changes in the number of Associate Diploma/Diploma holders.

There appears to have been considerable growth in overall enrolments in Associate Diploma/Diploma (or stream 3500/3600 courses) both in South Australia and nationally in recent years (although it is difficult to compare enrolments in different years between 1986 and 1991 due to refinements in data capture techniques in various States between 1986 and 1991).

Notwithstanding this caveat concerning data quality, the available data suggests that in South Australia enrolments in Stream 3500/3600 courses rose *threefold* between 1986 and 1990. In 1986, 2,751 students enrolled in Associate Diploma/Diploma courses in South Australia. By comparison, in 1990 11,443 persons enrolled in TAFE Associate Diploma/Diploma courses in South Australia.

As shown in Figure 1 below, there were also substantial increases in enrolments in TAFE stream 3500/3600 courses at the national level between 1986 and 1990, although the national rise in enrolments, while extremely rapid, was not quite as dramatic as that for South Australia. Whereas in 1986 there were 46,905 persons enrolled in Associate Diploma/Diploma courses in Australia by 1990 there were 100,554 persons enrolled in TAFE's stream 3500/3600 courses in Australia. That is, nationally enrolments in Associate Diploma/Diploma courses more than doubled over the short period between 1986 and 1990.

However, these statistics do tend to overstate the increase in enrolments at this level in TAFE over the period between 1986 and 1990. Associate Diplomas only came into being in the mid 1980s, and many courses have subsequently been upgraded to this level and many new Associate Diploma courses have been developed. Notwithstanding this important qualification, the available data suggests there has been a major increase in enrolments in Associate Diploma/Diploma courses in South Australia in the past five years. This perspective is supported by anecdotal evidence from College teaching staff. In addition, a substantial proportion of the increase in enrolments appears likely to have arisen from increased enrolments in the Associate Diploma in Accounting (see detailed discussion below).

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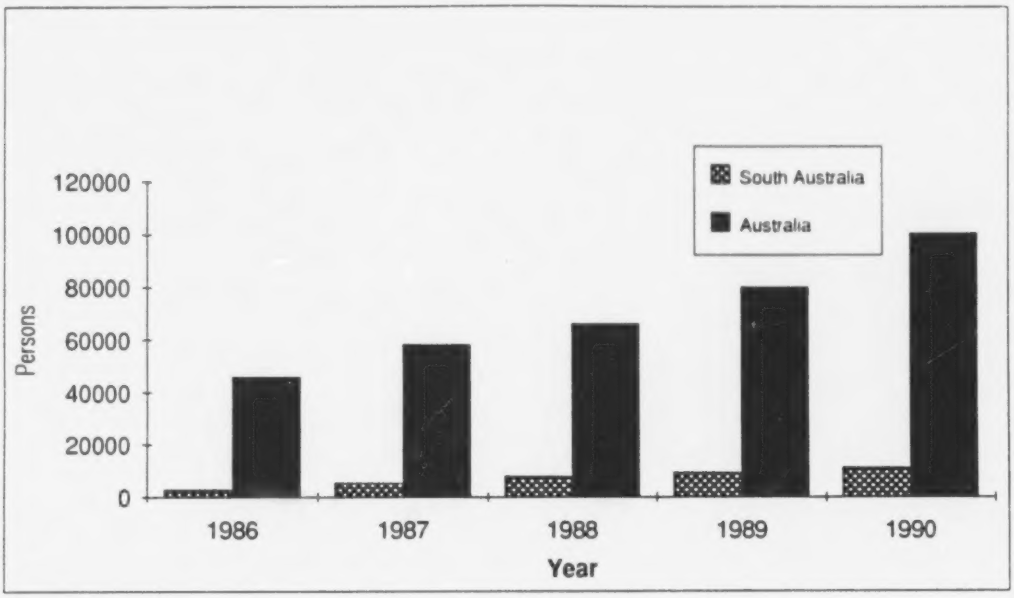
[18] Tourism Training Australia (1991) *Directory of Programs Recognised by the Hospitality Industry, p.1*

[19] Tourism Training Australia (1991) *The Hospitality Skills Assessment and Recognition Program, an Employees Guide*

Figure 1: **Growth In TAFE Enrolments in Steam 3500/3600 (Associated Diploma/Diploma) Courses between 1986 and 1990, South Australia and Australia**



Source: National Centre for Vocational Education Research, unpublished data.

There has also been a substantial increase in the number of persons completing Certificate and Associate Diploma courses, both in South Australia and nationally in recent years.

Unfortunately, available data on educational attainment, which is collected by the Australian Bureau of Statistics, does not differentiate between Certificate and Diploma courses. Therefore data on the number of persons completing Associate Diploma/Diploma courses is not separately available. However, given the marked increase in enrolments in Associate Diploma/Diploma courses at a time when the number of persons completing Associate Diploma/Diplomas and Certificates has also increased markedly, it seems reasonable to infer that completions of Associate Diploma/Diplomas have increased substantially in recent years.

(In its recent report *The Australian Vocational Certificate Training System*, the Employment and Skills Formation Council also expressed concern that the ABS did not distinguish between Certificate and Associate Diploma courses in data on educational attainment. The National Centre for Vocational Education Research shares this concern, because, as the Employment and Skills Formation Council commented, the lack of availability of disaggregated data severely weakens analysis of recent changes in this important area).[20]

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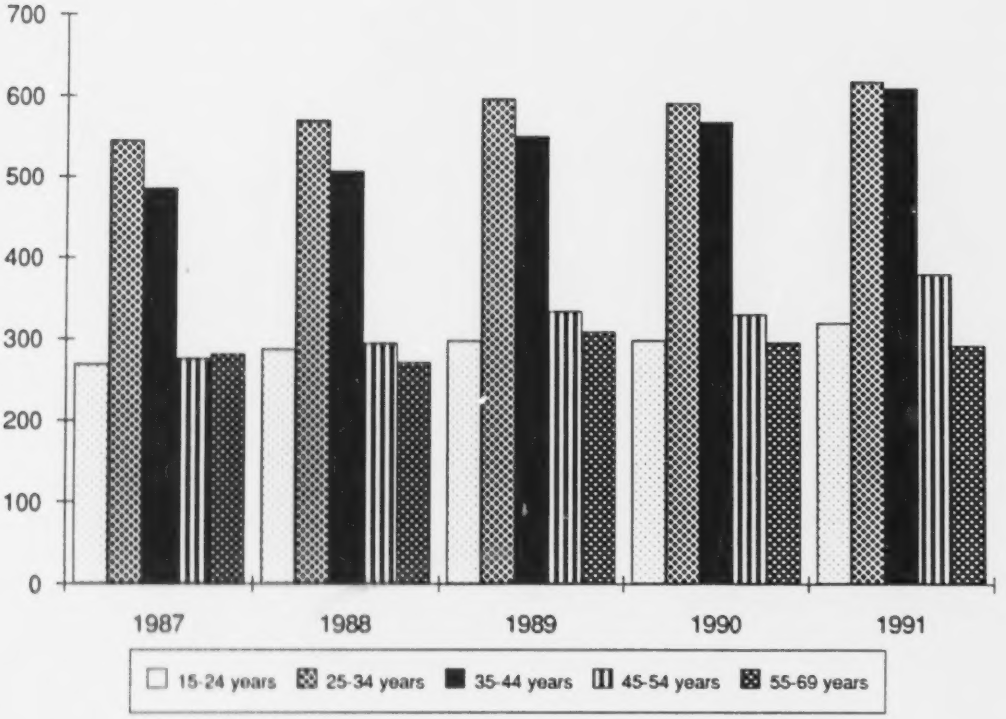
[20] National Board of Employment, Education and Training, Employment and Skills Formation Council (1992) *The Australian Vocational Certificate Training System*.

At the national level, the number of persons holding certificates or diplomas rose from 1.85 million persons in 1986 to 2.22 million in 1991, a 20.2 per cent rise, with the number of male certificate or diploma holders rising by 20.4 per cent and the number of female certificate or diploma holders rising by 11.3 per cent.

Growth in the number of certificate or diploma holders disaggregated by age group is shown in Figure 2 below. Between 1986 and 1991:

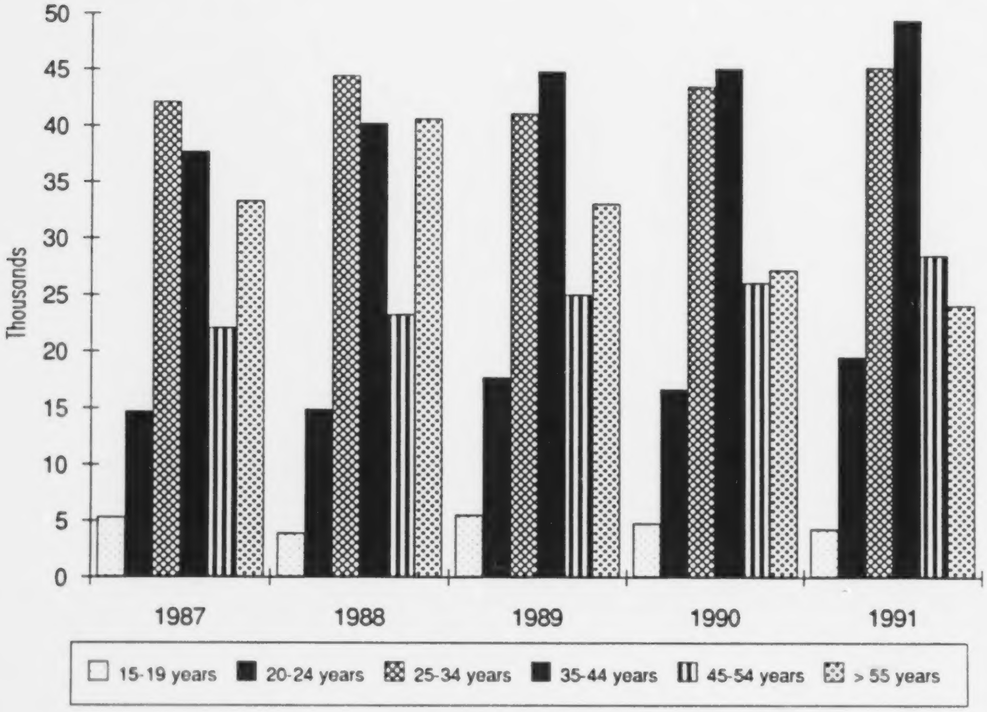
- the number of 45-54 year olds holding certificates or diplomas increased by 38.5 per cent;
- the number of 35-44 year old certificate and diploma holders increased by 26.3 per cent;
- the number of 15-24 year old certificate or diploma holders rose by 19.8 per cent;
- and the number of 25-34 year old certificate and diploma holders rose by 13.9 per cent.

Figure 2: **Educational Attainment, Australia, Certificate and Diploma Holders, By Age, Changes Between 1987 and 1991.**



Source: Australian Bureau of Statistics, *Labour Force Status and Educational Attainment*, Catalogue No. 62350., various issues.

Figure 3: **Educational Attainment, South Australia, Certificate and Diploma Holders, By Age, Changes Between 1987 and 1991**



Source: Australian Bureau of Statistics, unpublished data.

In South Australia the number of persons holding certificates or diplomas increased by 10.4 per cent between 1987 and 1991. As shown in Figure 3 above, between 1987 and 1991 the number of persons holding certificates or diplomas increased most in the 35-44 age group (increasing by 31.0 per cent), followed by persons in the 45-54 age group (where the number of certificate and diploma holders increased by 29.4 per cent) and in the 15-24 age group, where the number of certificate and diploma holders rose by 19.5 per cent.

In summary, notwithstanding concerns regarding the comparability of time series data on enrolments in TAFE between 1987 and 1991 and the unavailability of data on educational attainment disaggregated into certificate and diploma holders, the available data suggests there has been a significant increase in demand for middle level training in South Australia and nationally in recent years.

(Of course, some commentators attribute this increase in enrolments in middle level courses not so much as an indication of industry's demand for a more skilled workforce so much as "creeping credentialism", whereby entry criteria to a particular job are gradually increased despite the underlying nature of the job remaining essentially unchanged. For example, Geoff Maslen, writing in the *Australian Campus Review Weekly* commented, rather caustically:

> *To get work, many graduates have to lower their sights and opt for jobs for which they are overqualified. They learn to switch on a taxi meter or they become part-time clerks, or they return to school as cleaners. In doing so, they displace others with no certificates and less presence when it comes to being selected.*[21]

He went on to say

> *The process creates credential creep. Employers seize on the qualifications inflation among applicants for jobs, and aspiring workers end up having to be more and more educated to tackle less and less complicated tasks.*

2.8 Recent Growth In Enrolments In Target SADETAFE Courses.

- *Introduction*

This sub-section discusses recent changes in enrolments in the three target SADETAFE courses, the Associate Diplomas in Accounting and Mechanical Engineering and the Diploma in Hospitality Management.

It is difficult to analyse recent movements in enrolments in the Associate Diploma in Accounting, the Associate Diploma in Mechanical Engineering and the Diploma in Hospitality Management offered by the South Australian Department of Employment and Technical and Further Education with any certainty. This reflects the fact that, due to refinements in data collection techniques, individual enrolments can only be compared for 1986/1987 and for 1988 to 1990. In addition, at the time of writing, data on enrolments in the target SADETAFE courses was only available for the period from 1986 to 1990.

- *Growth in Enrolments in the SADETAFE Associate Diploma in Accounting*

Notwithstanding the qualifications expressed above concerning refinements in data collection techniques over the period from 1986 to 1990, Table 2 below suggests there has been a substantial increase in individual enrolments in the South Australian Associate Diploma in Accounting in recent years. Between 1988 and 1990 enrolments rose by 55.8 percent, and 1990 enrolments were *eight times* greater than in 1986.

Table 2: Persons Enrolled in the Associate Diploma in Accounting, South Australia, 1986-1990

Year	Males	Females	Persons
1986	306	349	678
1987	318	364	684
1988	1,620	1,442	3,566
1989	2,240	2,540	4,821
1990	2,408	3,136	5,555

Source: Department of Employment and Technical and Further Education, unpublished data.

Note: Due to refinement in data collection techniques, individual enrolments can only be compared for 1986/87 and 1988/90.

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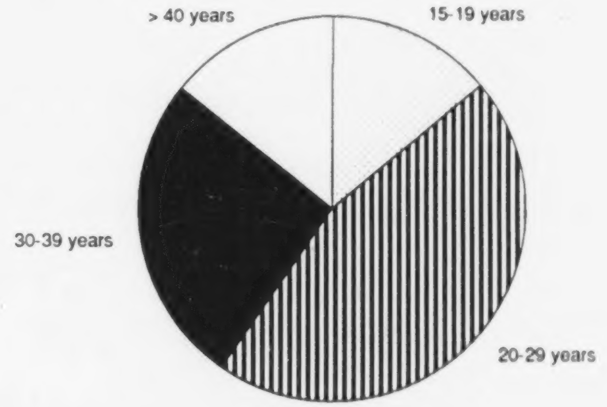
[21] Maslen G.(1992) 'Alternatives to credential creep in galloping tertiary expansion' in *Australian Campus Review Weekly* Feb 5 1993, Vol.2 No.3, p.9.

Increased enrolments by females seem to be a major factor in the overall increase in recent enrolments in this course between 1988 and 1990. Whereas male enrolments in the Associate Diploma in Accounting rose by 788 or 48.6 per cent between 1988 and 1990, female enrolments rose by 1194 or 61.4 per cent between 1988 and 1990. Indeed, female enrolments have exceeded male enrolments in the Associate Diploma in Accounting over the entire period between 1986 and 1990, rising from 51.5 per cent of enrolments in 1986 to 56.5 per cent of enrolments in 1970.

The available data indicates that the overwhelming majority of enrolments in the Associate Diploma (for both males and females) were by persons aged between 20 and 39. As shown in Figure 4 below, in 1990 44.9 per cent enrolments in the SADETAFE Associate Diploma in Accounting were by persons aged 20-29. A further 25.5 per cent of enrolments were by persons aged 30-39. The age distribution of enrolments in 1990, considered by gender, were remarkably similar, especially in the 20-39 age group, where the major proportion of enrolments took place.

Figure 4: **Enrolments in the Associate Diploma in Accounting, By Age Group, 1990**



Source: DETAFE unpublished data

Anecdotal evidence from SADETAFE College staff suggests, however, that in the past two years (1991 and 1992) there has been a marked increase in the number of 15-19 year olds undertaking the Associate Diploma in Accounting, with more students seeking to undertake full-time study or, as an alternative, seeking to take the maximum possible subjects on a part-time basis.

- *Changes in Enrolments in the SADETAFE Associate Diploma in Mechanical Engineering*

Notwithstanding the qualifications expressed at the beginning of this Section concerning comparing data on enrolments over the period between 1986 and 1990, the available data suggests that enrolments in the Associate Diploma in Mechanical Engineering fell between 1986 and 1990 (see Table 3 below).

Indeed, individual enrolments declined markedly between 1988 and 1990, falling by 43.4 percent. The number of male students fell by 299 over this period (a 33 percent decline), while the number of female students fell by 189 (an 86.3 per cent decline).

As a result of the significant fall in female enrolments in the Associate Diploma in Mechanical Engineering, by 1990 female enrolments represented only 4.7 per cent of total enrolments in the Associate Diploma. By contrast, in 1988 nearly 20 percent of persons enrolled in this course were women.

Table 3: Persons Enrolled in the Associate Diploma in Mechanical Engineering, South Australia, 1986-1990

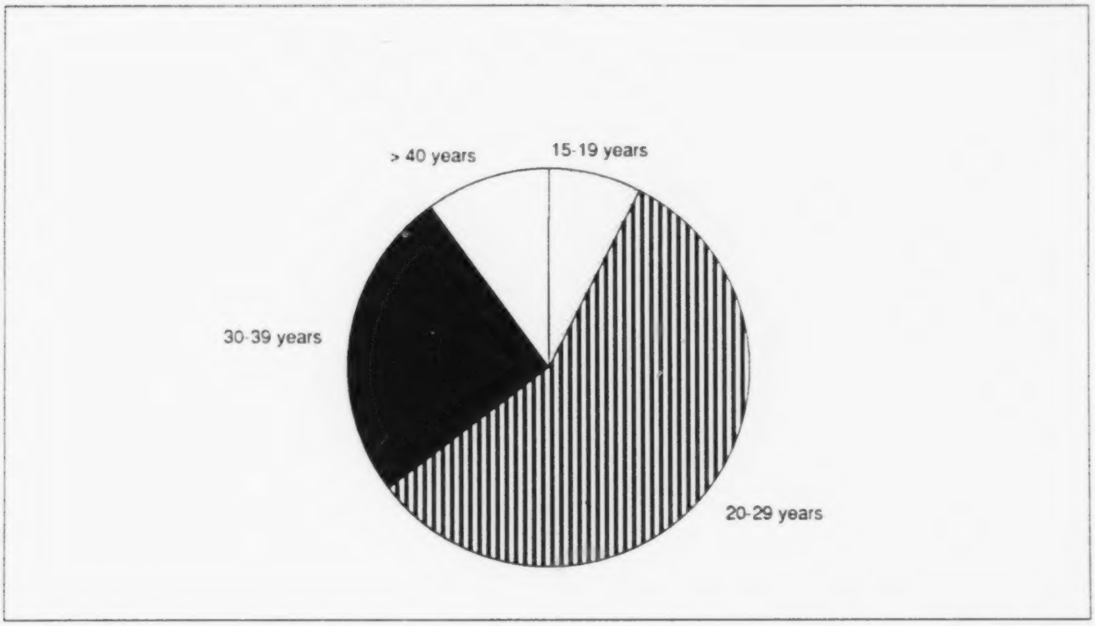
Year	Males	Females	Total
1986	826	125	951
1987	660	93	753
1988	906	219	1,125
1989	787	151	941
1990	607	30	637

Source: Department of Employment and Technical and Further Education, unpublished data.

Note: Due to refinements on data collection techniques, individual enrolments can only be compared for 1986/87 and 1988/90.

As shown in Figure 5 below, the majority of students enrolled in the Associate Diploma in Mechanical Engineering in 1990 were aged between 20 and 29 (both males and females). A further 25.1 per cent of students were between 30 and 39 years of age.

Figure 5: Enrolments in the Associate Diploma in Mechanical Engineering, by Age Group, 1990



Source: DETAFE, unpublished data

However, as was the case in respect to the Associate Diploma in Accounting, anecdotal evidence by College lecturing staff suggests that since 1990 enrolments by persons 15-19 in the Associate Diploma in Mechanical Engineering have increased sharply.

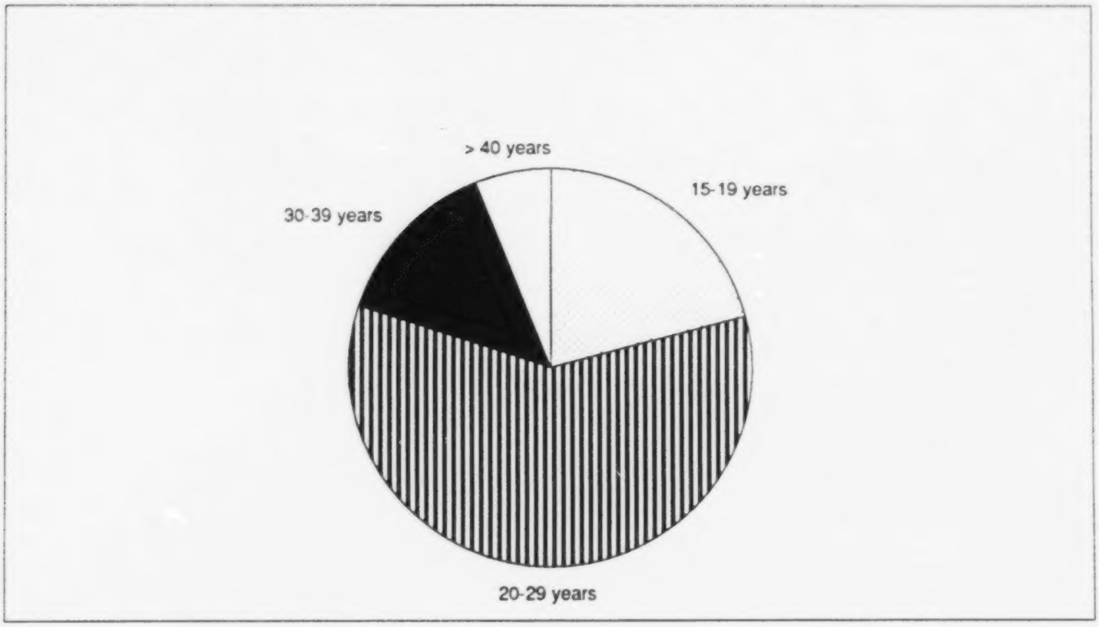
- *Enrolments in the SADETAFE Diploma in Hospitality Management.*

Given that the Diploma in Hospitality Management has only commenced relatively recently, it was not possible to develop a time series on enrolments in this course. In 1989 a total of 217 persons were enrolled in this course. By 1990 there were 338 persons enrolled in the course. Enrolments by females slightly exceeded male enrolments.

In 1990, as shown in Figure 6 below, the majority of students enrolled in the Diploma in Hospitality Management were aged between 20 and 29. However, in contrast to enrolments in the other target courses, enrolments of 15-19 year olds were the next most significant group of enrolments.

Anecdotal evidence from College lecturing staff suggests, however, that unlike the Associate Diplomas in Accounting and Mechanical Engineering, enrolments by persons aged 15-19 in the Diploma in Hospitality Management have not increased significantly recently in this course. In part this reflects deliberate selection policy, as older persons are seen as being more likely to have the maturity needed to succeed in management positions in the Hospitality industry.

Figure 6: Enrolments in the Diploma in Hospitality Management, by Age Group, 1990



Source: DETAFE, (unpublished data)

2.9 Conclusions

As stated at the beginning of this Section, the initial aim of Section 2 was to examine the broad occupational outcomes arising from middle level training and the more specific occupational outlets arising from undertaking the three target DETAFE Associate Diploma courses which form the focus of this analysis.

The extent to which Associate Diplomas/Diplomas are recognised in official occupational nomenclature represents an important test for the existence of an independent, autonomous employment base for Associate Diploma/Diploma holders. *As discussed in Section 2.2 the existing ASCO structure does not provide a consistent occupational outlet for Associate Diploma/Diploma holders, although ASCO suggests the Paraprofessional classification is the most likely occupational outlet.* However, as discussed in Section 2.3, there are specific occupational outlets for the *target* Associate Diploma/Diploma courses in ASCO, eg. Accountants, Accounting Clerks, Mechanical Engineering Associates, Restaurant and Catering Managers and Accommodation and Tavern Managing Supervisors. Recognition of these target occupational outlets under industrial awards varied significantly prior to award restructuring, as discussed in Section 2.4 above. Accountants, for example, who work in *public practice* usually do not work under industrial awards. Hospitality management occupations, while referred to in certain hospitality industry awards, were not defined in terms of skill and training requirements. In any case, given the high proportions of small businesses in this industry, frequently managed by their owners, award coverage of management employees in this industry is limited. Mechanical engineering occupations, while arguably better defined than the occupations referred to immediately above in industrial awards prior to award restructuring, were not defined in terms of skill levels and training requirements.

Given the significant proportion of accountants employed in public practice, who as noted above, are usually not employed under industrial awards, it seems likely that award restructuring has not, in regard to this occupational area, resulted in better defining these occupations or the skills and training needed to work in these occupations as outlined in Section 2.5. However, award restructuring in industry, government and commerce has offset this to some degree, with the Associate Diploma in Accounting, for example, now being recognised by the South Australian Government for classification into accounting positions. In contrast to the position regarding general accounting practices, the roles of mechanical engineering associates are now closely defined in relevant awards in terms of skill and training requirements, and hospitality awards now also include, for most levels, a detailed description of required skills and training (although the role of management personnel had not been addressed under Federal Awards at the time of writing).

In summary, in respect to those occupations for which vocational training is provided by the target SADETAFE courses the process of award restructuring, with its emphasis on skills, competencies and training, has therefore tended to consolidate the employment base for Mechanical Engineering Associates and has the potential, once award restructuring is extended to hospitality management awards, to have a similar influence on the hospitality industries. Award restructuring appears likely, however to have only a limited impact on the employment base available to accountants in public practice and is yet to effect the employment base available to accounting clerks, as award restructuring has been relatively slow in respect to State Clerks Awards under which most accounting clerks are employed.

(Prior learning, as discussed in Section 2.6, has become a more widely accepted form of vocational training, especially in the hospitality industry, and may have the potential to become more widely regarded as an alternative to TAFE vocational training.)

As discussed in Section 2.7 data on enrolments in TAFE Associate Diploma/Diploma courses (which are classified under stream 3500/3600) indicates *there has been a substantial increase in enrolments in Associate Diploma/Diploma courses*, both in South Australia and nationally in recent years, (although the increase in enrolments at this level may partially reflect upgrading of previous Advanced Certificate courses to Associate Diploma status and the introduction of new Associate Diplomas). At the same time it also appears likely that there has been a marked increase in the number of persons completing Associate Diploma/Diploma courses in South Australia and nationally in recent years. This indicates that Associate Diploma/Diploma courses are increasingly becoming, to the student population at least, a more commonly accepted form of vocational training. Recent press articles concerning excess demand for university places in 1992, together with suggestions by the Federal Government that persons unable to enter university undertake Associate Diploma courses, suggests increases in demand for middle level training are likely to continue. As discussed in Section 2.8, enrolments appear to be increasing in respect to two of the three target DETAFE courses in line with overall enrolment trends.

The question which then arises is whether students' willingness to undertake studies in TAFE in these *middle level courses is equalled by employers' enthusiasm for their skills*? That is, is this form and level of vocational training of assistance to students in gaining employment in areas related to their vocational training and in respect to their career development? Do employers accept this level of training? This is difficult to gauge from enrolment data alone, as, unlike the apprenticeship system, this level of vocational training does not have specific employment links.

Analysis of the labour market experiences of graduates from the three target South Australian DETAFE courses (the focus of Sections 3, 4 and 5) will go some way to answering this question.

Section 3: Labour Market Opportunities arising from Middle Level Vocational Training in TAFE

3.1 Introduction

As discussed in Section 2, unlike the apprenticeship system, *there are no specific linkages between undertaking middle level vocational training via TAFE Associate Diploma/Diploma courses and employment in particular occupations*. It is therefore very difficult to gauge industry's demand for persons with TAFE middle level vocational training and/or to assess the extent of the employment base available to persons undertaking TAFE Associate Diploma/Diploma courses from enrolment data alone.

The aim of Section 3 is to review the employment opportunities likely to be available to persons undertaking Associate Diploma/Diploma courses in South Australia in the next 3-5 years. The analysis is divided into two parts:

- first, Section 3 briefly discusses recent and likely trends in the broad employment base available to persons undertaking Associate Diploma/Diploma courses (i.e. ASCO Major Group 3, Paraprofessionals, as identified in Section 2) in respect to South Australia and at a national level;

- second, Section 3 provides more detailed analysis of recent and likely employment trends in respect to those occupations identified in Section 2 for which the three target South Australian Associate Diploma/Diploma courses provide vocational training.

In this context, it is important to appreciate that occupational demand is a derived demand. The level of demand for the 'factors of production' such as 'labour' in its various 'occupational specialisations' will be directly related to the strength of demand for the relevant industry's output which, in turn, is a function of consumer tastes and preferences. In this way, the demand by consumers and intermediate producers for the final products of firms is the 'derived demand' for labour and other factors of production. This is what is meant by *'derived occupational demand'*. For example, the occupational demand for accountants is *derived* from the community's demand for accounting services, and the occupational demand for hospitality managers is *derived* from the community's demand for hospitality services. Developing an understanding about trends in the pattern of demand for these final goods and services will assist in analysing likely patterns of demand for the occupations necessary to produce them.[1]

The aim of the analysis in Section 3 will be to concentrate discussion on longer term structural economic factors which will influence the main industries in which graduates from these three target courses are likely to be employed over the next 3-5 years, rather than short-term cyclical economic factors (although obviously it is impossible to ignore the effects of short-term economic factors).

Structural economic change occurs as a result of fundamental, longer term, irreversible and deterministic changes in the economy such as:

- technological change resulting in a rapid and increasing rate of innovation in communications and computing technology;

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[1] The concept of 'derived occupational demand' is discussed in detail in Volume 1, Issue 6 of the *Youth Labour Market Issues series* produced by the Labour Market Analysis Branch in SADETAFE (1990) entitled 'Emergence of the Post-Industrial Society - Skill Intensification and Occupational Shifts in the Pattern of Employment'.

- changes in consumer preferences and tastes favouring relatively more consumption of services and lower demand for manufactured products e.g. increases in restaurant services and relatively less consumption of food products consumed in the house;
- government policy, e.g. a Government decision to reduce tariffs on products like footwear which confer a cost advantage to low-wage countries such as China.[2]

Cyclical economic change, by contrast occurs as a result of short-term changes in the business cycle reflecting factors like seasonal influences or government policy intended to expand or contract economic activity. For example the 1990/91 economic downturn has occurred as a result of cyclical factors, particularly through changes in the Commonwealth Government's macro-economic policies.

As indicated in Section 1.4, Research Methodologies Used in This Study, the approach generally used in Section 3 is described in detail in *TAFE Labour Market Issues*, Vol 1. No. 9. "Labour Market Forecasting Methods for TAFE Program Planners", the ninth in a series of occasional monographs informing South Australian DETAFE staff about broad labour market issues. This series is produced by the Labour Market Analysis Branch in the South Australian Department of Employment and Technical and Further Education. In essence, the approach involves detailed industry-based assessments of training needs, as opposed to mechanical econometric modelling. It involves assessment of future trends in occupational supply and demand, based on an appreciation of likely long term structural trends in those industries where persons working in target occupations are generally employed. (However, in discussing likely trends in overall paraprofessional employment it has been necessary to review occupational projections from certain econometric models, as it would be impractical, in the context of this project, to analyse underlying trends in all the industries in which paraprofessionals are employed).

Projections of likely changes in employment in different occupations which are incorporated in this report are constrained to a 3-5 year time horizon. It seems likely that longer term projections would prove of limited usefulness at a time when the national economy is undergoing significant structural economic change and, simultaneously, as a consequence of award restructuring, the very nature of many occupations is changing markedly virtually overnight.

3.2 Recent and Likely Trends in the Employment Base Available to Paraprofessionals in South Australia and Nationally

3.2.1 Introduction

As previously discussed in Section 2, the official Australian occupational nomenclature, the Australian Standard Classification of Occupation (ASCO), suggests the major likely occupational outlet for persons undertaking Associate Diploma or Diploma courses through TAFE is employment as paraprofessionals. Section 2 also drew attention to a lack of consistency in the official occupational nomenclature in this regard and noted that the Australian Bureau of Statistics is currently reviewing ASCO and is attempting to redress this conceptual problem as well as other conceptual problems in ASCO.

However, notwithstanding these conceptual problems in ASCO in regard to occupational outcomes arising from middle level TAFE training it appears likely that a significant proportion of persons undertaking middle level vocational training through TAFE do find employment as paraprofessionals (although not in all cases, as the discussion in Section 2 concerning occupational outlets from the target DETAFE courses indicated). This sub-section therefore reviews growth of employment of paraprofessionals in South Australia and nationally (to establish whether South Australia's experiences in regard to changes in paraprofessional employment are consistent with those occurring at a national level) in recent years, and examines econometric projections of likely growth in employment of paraprofessionals in the next 3-5 years.

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[2] Labour Market Analysis Branch, South Australian Department of Employment and Technical and Further Education (1991), *TAFE Labour Market Issues*, Issue 4, 'Emergence of the Post-industrial economy - Overview', Vol. 1, No. 4.

3.2.2 National Growth in Employment of Paraprofessionals

In August 1991 there were 478221 persons employed as paraprofessionals in Australia and paraprofessional employment accounted for 6.2 per cent of total employment in Australia. That is, there is a substantial employment base for paraprofessionals at the national level.

Moreover, there has been substantial growth in employment of paraprofessionals in the past two decades at the national level. Between 1971 and 1986, as Table 4 below indicates, growth in employment of persons classified in the paraprofessional major group in ASCO was only exceeded by growth in employment of persons classified in the professional major group in ASCO.

Table 4: Employment Growth Considered by ASCO Major Group, Australia, 1971-1986

Asco Major Group	Employment Growth (%)
Managers and Administrators	16.8
Professionals	63.8
Paraprofessionals	38.1
Tradespersons	8.6
Clerks	29.4
Salespersons and Personal Service Workers	31.3
Plant and Machine Operators and Drivers	27.9
Labourers and Related Workers	5.7
Total	21.6

Source: Karmel T. and Aungles P., Department of Employment, Education and Training, (1990), *Changes in Occupational Employment 1971-1986: Implications for Skill Levels.*

More recently, as shown in Table 5 below, between August 1987 and August 1991 employment of paraprofessionals continued to grow relatively rapidly at the national level. Nationally, employment of paraprofessionals rose by 8.1 per cent between August 1987 and August 1991 (1.6 per cent a year), the same rate as overall growth in national employment.

Employment of *female* paraprofessionals grew more rapidly than male paraprofessional employment between August 1987 and August 1991, probably reflecting, to a large degree, the concentration of female paraprofessional employment in the rapidly growing health care industries. Female paraprofessional employment rose by 13.6 per cent between August 1987 and August 1991. By comparison, nationally male paraprofessional employment rose by 3.9 per cent over this period.

Table 5: Australia, Changes in Employment of Paraprofessionals between August 1987 and August 1991

Year	Males	Females	Persons
1987	250156	192191	442347
1988	258092	188755	446846
1989	251543	202257	453800
1990	262767	209124	471892
1991	259904	218317	478221

Source: Australian Bureau of Statistics, Labour Force Survey, unpublished data on microfiche.
Note: Employment data as at August each year has been used as it is generally regarded as being less affected by seasonal influences than data for other quarters.

However, in terms of employment opportunities for persons completing TAFE middle level training via Associate Diplomas or Diplomas, this rosy picture of substantial growth in paraprofessional employment over the last five years at the national level is somewhat misleading.

While some persons become paraprofessionals through undertaking TAFE middle vocational training, as discussed in Section 2, many persons become paraprofessionals either by undertaking introductory vocational training or by undertaking more advanced vocational training. Table 6 below disaggregates recent national employment growth in the paraprofessional major group into two sub-groups:

- Nurses, police, miscellaneous paraprofessionals (welfare paraprofessionals, performing arts support workers, inspectors, child care co-ordinators, ambulance officers, prison officers, procurement officers, sports persons) (i.e. persons unlikely to undertake TAFE middle level training); and

- "net" paraprofessionals (i.e. persons more likely to undertake middle level vocational training through TAFE).

As shown in Table 6 below, there have been substantial increases in employment of the first group of occupations (nurses etc) at the national level between August 1987 and August 1991. Indeed, employment of persons in these occupations rose by 9.2 per cent between 1987 and 1991. *However, as noted above this sub-group usually does not undertake vocational training at TAFE through Associate Diploma/Diploma courses.*

By contrast, employment of "net" paraprofessionals (i.e. persons more likely to undertake middle level vocational training through TAFE) rose by only 5.5 per cent between August 1987 and August 1991. That is, employment of the "net" paraprofessional group grew more slowly than total national employment over the period between August 1987 and August 1991.

Table 6: Australia, Changes in Employment of Paraprofessionals, between August 1987 and August 1991, Less Employment of Nurses, Police, and Miscellaneous Paraprofessionals (All Persons)

Year	Paraprofessionals	Less Nurses, Police, Misc.	Net Paraprofessionals
1987	442347	310200	132147
1988	446846	308097	138749
1989	453800	323468	130332
1990	471892	334850	137042
1991	478221	338784	139437

Source: Australian Bureau of Statistics, Labour Force Survey data on microfiche.

It is acknowledged that the distinction between these two groups is somewhat arbitrary. There are undoubtedly some persons undertaking TAFE middle level training who are employed outside the "net" paraprofessional group as paraprofessionals.

However, the inescapable conclusion arising from this analysis is that recent growth in paraprofessional employment at the national level has been most rapid where TAFE does not provide middle level training via Associate Diploma/Diploma courses. Conversely, there has been relatively slow growth in employment in respect to those occupations within the Paraprofessional Major Group where TAFE provides middle level training via Associate Diploma/Diploma courses in recent years at the ASCO national level.

3.2.3 Recent Growth of Employment of Paraprofessionals in South Australia

As at August 1991, a total of 40279 persons were employed as paraprofessionals in South Australia. At that time employment of paraprofessionals accounted for 6.3 per cent of total employment in South Australia. Paraprofessional employment is therefore significant in South Australia and as was the case at the national level, there is a substantial employment base for paraprofessionals in South Australia.

Changes in the number of persons employed as paraprofessionals in South Australia between August 1987 and August 1991 are shown in Table 7 below. As the data in Table 7 illustrates, while there have been substantial year on year fluctuations in paraprofessional employment in South Australia in recent years, the number of persons employed as paraprofessionals in South Australia increased by 2350 or 6.2 per cent between August 1987 and August 1991. By comparison, total employment rose by 5.9 per cent in South Australia over the same period. (In contrast to the situation at the national level, in South Australia employment of male paraprofessionals rose more rapidly between August 1987 and August 1991 than female paraprofessional employment. Male paraprofessional employment rose by 14.0 per cent in South Australia between August 1987 and August 1991 whereas female paraprofessional employment fell by 2.3 per cent over this period possibly reflecting the impact of budgetary constraints in South Australia in hiring health paraprofessionals).[3]

Table 7: Changes in Employment of Paraprofessionals in South Australia between August 1987 and August 1991

Year	Males	Females	Number employed (Persons)
1987	19720	18209	37929
1988	23620	19258	42878
1989	23802	18213	42015
1990	22771	16770	39541
1991	22483	17796	40279

Source: Australian Bureau of Statistics, *The Labour Force*, Cat. No. 6203.0, unpublished data.

The available data suggest there is a substantial paraprofessional employment base in South Australia, and that employment in this area is growing in a fashion consistent with employment elsewhere in the State economy. *However, as was the case at the national level, a significant proportion of persons working in South Australia in occupations which are designated as paraprofessional in ASCO either do not undertake vocational training through SADETAFE (e.g. nurses) or undertake vocational training at introductory levels (e.g. police, child care workers) rather than undertaking middle level vocational training through SADETAFE.*

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[3] Averaging quarterly labour force data confimed this trend.

Table 8 below disaggregates changes in South Australian paraprofessional employment between August 1987 and August 1991 into two groups (in the same fashion as Table 6 in regard to federal paraprofessional employment).

The first group is paraprofessional employees who are *not likely* to undertake middle level vocational training through SADETAFE, while the second group "net" paraprofessionals is comprised of persons more likely to undertake middle level vocational training through SADETAFE.[4]

Table 8: South Australia, Changes in Employment of Paraprofessionals, between August 1987 and August 1991, Less Employment of Nurses, Police, and Miscellaneous Paraprofessionals (All Persons)

Year	Paraprofessionals	Less Nurses, Police, Miscellaneous	Net Paraprofessionals
1987	37929	27355	10574
1988	42878	30984	11894
1989	42015	30944	11071
1990	39541	26793	12748
1991	40278	28392	11886

Source: Australian Bureau of Statistics, Labour Force Survey Data on Microfiche

Employment of paraprofessionals, in respect to those occupations where TAFE may provide middle level training, rose by 12.4 per cent between August 1987 and August 1991 (i.e. double the rate of growth in total employment in South Australia over this period). By contrast employment in the other group (i.e. where TAFE middle level training was *not* the norm for the occupations concerned), rose by only 3.9 per cent between August 1987 and August 1990.

In summary, in contrast to the situation at the national level, the rate of growth of employment in paraprofessional occupations in South Australia between August 1987 and August 1991 in respect to those occupations where TAFE middle level vocational training may be undertaken exceeded employment growth in those occupations where vocational training was likely to take place outside TAFE or be at lower levels if undertaken through TAFE.

3.2.4 The Outlook for Paraprofessional Employment at the National Level in the Next 3-5 Years

The seminal work available, at the time of writing this report, which incorporates projections of likely changes in employment by occupation at the *national* level is a recent publication by the Department of Employment, Education and Training (DEET) entitled 'Australia's Workforce in the Year 2001' which makes occupational projections based on the ORANI econometric model. There has, however, been some controversy concerning the employment projections in 'Australia's Workforce in the Year 2001'. Criticisms have been made on a number of counts, including:

- Criticisms of the econometric methodology used to develop projections (i.e. the ORANI methodology). This methodology has been subject to criticism, for some years, by proponents of alternative methodologies.

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[4] This distinction is necessarily somewhat arbitrary. The basis of being classified into one group or the other is explained at page 44 above.

- Criticism of the concept of using 'top-down' econometric modelling rather than 'bottom-up' assessment of likely labour market imbalances based on a detailed knowledge of underlying micro-economic trends. Rod Stinson, writing in the Campus News, recently strongly criticised 'Australia's Workforce in the Year 2001' on these grounds. Richard Curtain has also criticised what he perceives as the limitations of macro level labour market forecasting.[5]

- Criticisms of the scenarios of economic growth, productivity changes, and export growth which underpin the occupational projections in 'Australia's Workforce in the Year 2001', especially given the severity of the economic downturn in Australia in the past year (i.e. since "Australia's Workforce in the Year 2001' was published).

It is *not* the purpose of this paper to debate these issues. However, it is important that these issues be acknowledged. Hence, while the importance of the projections of employment growth by occupation in 'Australia's Workforce in the Year 2001' is acknowledged, as the authors of this work comment was, the projections of likely changes in employment in particular occupations in 'Australia's Workforce in the Year 2001' should only be seen as potential outcomes, not absolute forecasts of the future.

What then are DEET's projections (as set out in 'Australia's Workforce in the Year 2001') in regard to growth in paraprofessional employment in Australia? As shown in Table 9 below, DEET suggests that nationally paraprofessional employment will grow slightly more rapidly than total employment growth in Australia in the next decade. However, employment of paraprofessionals is not expected to grow as rapidly as employment of professionals, sales workers and tradespersons in the period between 1991 and 2001.

Table 9: DEET, Australia, Projected Employment Growth by ASCO Major Group, 1991-2001 (Per Cent)

Occupation (ASCO)	Industry structure effect 1	Occupational share effect 2	Hours effect 3	Total Change in occupational employment 4=1+2+3
Managers	9.5	2.2	-0.2	11.5
Professionals	19.8	12.6	0.7	33.0
Paraprofessionals	14.0	1.3	1.1	16.5
Tradespersons	18.0	2.3	0.9	21.2
Clerks	17.6	-3.4	1.0	15.2
Sales workers	22.6	0.2	1.5	24.3

Source: Department of Employment, Education and Training, (1991), *'Australia's Workforce in the Year 2001'*, Table 3.2, p.23.

However as DEET acknowledged, these projections of employment growth at the major group level in ASCO 'tend to hide a lot of detail' in regard to employment growth at the occupational level. As shown in Table 10 below, DEET considers there will be considerable variations in employment growth between occupations in the paraprofessional major group in ASCO in the period from 1991 to 2001.

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[5] Curtain, R. (1989) *Addressing skills shortages: the limitations of macro-level labour market forecasting and an alternative approach* in Australian Journal of TAFE Research and Development, Vol. 2, No. 2, pp.5-12.

Table 10: DEET, Australia, Projections of Employment Growth by Occupation in the Paraprofessional Major Group in ASCO, 1991 to 2001

Occupation	Total employment growth 1991-2001 (%)
Medical technicians	11.1
Engineering technicians	8.7
Aircraft pilots	7.4
Other transport technicians	4.5
Registered nurses	20.5
Police	14.2
Welfare paraprofessionals	53.8
Child care co-ordinators	44.5
Other paraprofessionals	14.5
TOTAL	16.1

Source: Department of Employment, Education and Training (1991) *Australia's Workforce in the Year 2001*, Table A2.1 p. 128

Whereas DEET anticipates relatively strong employment growth in respect to some occupations within the paraprofessional major group, especially welfare paraprofessionals (who generally do not undertake TAFE middle level training), DEET forecasts much slower growth in employment in respect to other occupations, notably transport technicians and engineering technicians (who seem more likely to undertake middle level training through TAFE).

The underlying message from this variation in anticipated growth, in paraprofessional occupations between 1991 and 2001 in employment, is that DEET expects employment to grow relatively slowly, at the national level, in respect to those occupations where TAFE provides middle level training. In contrast, DEET expects employment to increase more rapidly in respect to those paraprofessional occupations where TAFE has a less significant role, or TAFE vocational training provision is generally of lower levels.

3.2.5 The Outlook for Paraprofessional Employment in South Australia in the Next 3-5 Years

In 1989 DETAFE and several other South Australian Government agencies engaged the Centre for South Australian Economic Studies (CSAES) to provide projections of employment requirements for the South Australian economy for the period from 1990-2005. In essence, the Centre for South Australian Economic Studies (CSAES) approach involved using input-output methodology in respect to scenarios of likely developments in the South Australian economy in the next 10-15 years. These scenarios were developed following consultation with employer bodies, the union movement, and relevant State government departments.

In Report No 5 in the project, completed in December 1990 (unpublished), the Centre for South Australian Economic Studies developed employment forecasts by occupation in respect to South Australia for the period from 1990 to 2005. The Centre's projections of employment growth in South Australia from 1989/90 to 1994/95, disaggregated by ASCO Major Groups, are shown in Table 11 below.

Table 11: Employment Growth Forecasts, by Occupation, South Australia, 1989/90 to 1994/95, Fixed Occupational Shares (Neutral Scenario)

Occupation	Employment 1989/90	Employment 1994/95	Average Annual % Change
Managers	80719	82251	0.4
Professionals	75988	81816	1.5
Paraprofessionals	47002	50590	1.5
Tradespersons	97307	101630	0.8
Clerks	104910	111052	1.2
Sales and Personnel	84360	89336	1.2
Plant and Machine Operators	47822	49435	0.7
Labourers	95950	100542	1.0
Total	634058	666652	1.0

Source: The Centre for South Australian Economic Studies (1990) *Employment Requirement Forecasts for the South Australian Economy*, Stage III, 'Employment Forecasts by Occupation', Table 4.1, p.88 (unpublished).

As shown in Table 11, the Centre for South Australian Economic Studies predicts paraprofessional employment will increase more rapidly than overall employment in South Australia in the period between 1989/90 and 1994/95. Indeed, employment of paraprofessionals is expected to increase more rapidly than in most ASCO major groups in South Australia over this period.

Data from this study is relatively aggregated. Therefore it has not been possible to disaggregate anticipated growth in paraprofessional employment by occupation to the same degree as was the case in respect to data at the national level, arising from 'Australia's Workforce in the Year 2001'.

However, the CSAES study disaggregates paraprofessional employment into two sub-groups, engineering and technical paraprofessional and other paraprofessionals. It appears reasonable to assume that engineering and technical paraprofessionals would largely undertake middle level vocational training through TAFE, while a substantial proportion of the 'other paraprofessional' sub-group would seem likely to undertake vocational training outside TAFE.

The available data suggest that employment of 'other paraprofessionals' will increase by an average of 1.7 per cent a year between 1989/90 and 1994/95, i.e. relatively strong growth. By contrast, employment of 'engineering and technical' paraprofessionals was forecast to rise by only 1.1 per cent a year between 1989/90 and 1994/95.

That is, consistent with the more disaggregated data available at the national level, the CSAES projections suggest relatively slow growth in employment is likely in South Australia in the next 3-5 years in respect to paraprofessionals who receive middle level vocational training through TAFE.

3.2.6 Some Conclusions Concerning Recent Trends in Employment of Paraprofessionals and Likely Trends over the Next 3-5 Years

At the national level, there is a substantial employment base for paraprofessionals, and there has been relatively rapid growth in employment of paraprofessionals both in recent years and over the past two decades. However nationally, employment of paraprofessionals likely to have undertaken middle level training through TAFE has grown more slowly than employment of other paraprofessionals in the period between August 1987 and August 1991.

There is also a substantial employment base for paraprofessionals in South Australia. Employment of paraprofessionals has also increased relatively rapidly in South Australia in recent years, with employment of paraprofessionals increasing more rapidly than total State employment between August 1987 and August 1991. However, in contrast to the position at the national level, employment of paraprofessionals likely to have undertaken middle level training through TAFE increased more rapidly than employment of other paraprofessionals in the period between August 1987 and August 1991.

Projections of likely employment growth over the 1990s by the Commonwealth Department of Employment, Education and Training (DEET) suggests that, nationally, paraprofessional employment will continue to increase rapidly over the next 3-5 years. Projections by the Centre for South Australian Economic Studies (CSAES) also suggest paraprofessional employment will also continue to increase relatively rapidly in South Australia over the next 3-5 years.

However, the projections by DEET and CSAES suggest that growth in employment of paraprofessionals likely to undertake middle level training through TAFE will lag behind growth in employment of other paraprofessionals nationally and in South Australia in the next 3-5 years. It should be noted however, that award restructuring is likely to exert a major influence on demand for persons with middle level training which is not fully reflected in either DEET's or CSAE's projections of employment growth.

(In addition, if South Australian industry chooses to enhance its international competitiveness by enthusiastically embracing technological change in the next decade, this scenario could change dramatically.)

3.3 Recent and Likely Trends in Employment of Accounting Personnel in South Australia

3.3.1 Introduction

This section of the report discusses recent and likely trends in employment of accounting personnel in South Australia. As discussed in Section 3.2, occupational demand is a derived demand. Demand for persons to undertake accounting activities is derived from demand for accounting services in the national and State economies.

Against this background, before discussing recent and likely employment trends in respect to graduates of the Associate Diploma in Accounting offered by SADETAFE, this section reviews recent trends in demand for accounting services in the South Australian economy, and likely trends in demand for these services over the next 3-5 years.

As discussed in Section 2.3, unlike the other target SADETAFE courses, there is no single clear occupational outcome available to persons undertaking the SADETAFE Associate Diploma in Accounting. Occupational outcomes in accounting fields can range from independent professional activity to paraprofessional support to persons with tertiary qualifications (i.e. university degrees) to clerical activities.

Reflecting this wide potential diversity of occupational outcomes from undertaking the SADETAFE Associate Diploma in Accounting, the following analysis reviews recent and prospective employment trends in South Australia *for all levels of accounting personnel.*

3.3.2 Recent Trends in Demand for Accounting Services in South Australia

- ***Introduction***

As discussed in Section 2.3, although accountants are employed in a wide variety of industries throughout the South Australian economy, the main source of employment of accounting personnel in the South Australian economy is the finance and business services industry division, (especially in the legal and accounting sub-division in respect to accountants).

Reflecting this, while this section largely discusses trends in the main industries where accounting personnel are employed in South Australia (i.e. in the finance, property and business services industry division), it also canvasses those factors which may lead to changes in employment of accounting personnel in South Australia *in all areas of the State economy.*

- ***Profile of the Main Industries Where Accounting Personnel are Employed in South Australia***

This section of the report provides a brief review of the characteristics of the main industry where accounting personnel are employed in South Australia, the finance and business services industry division, (and includes a more detailed discussion of the accounting services industry, which comes within the broader finance, property and business services industry division).

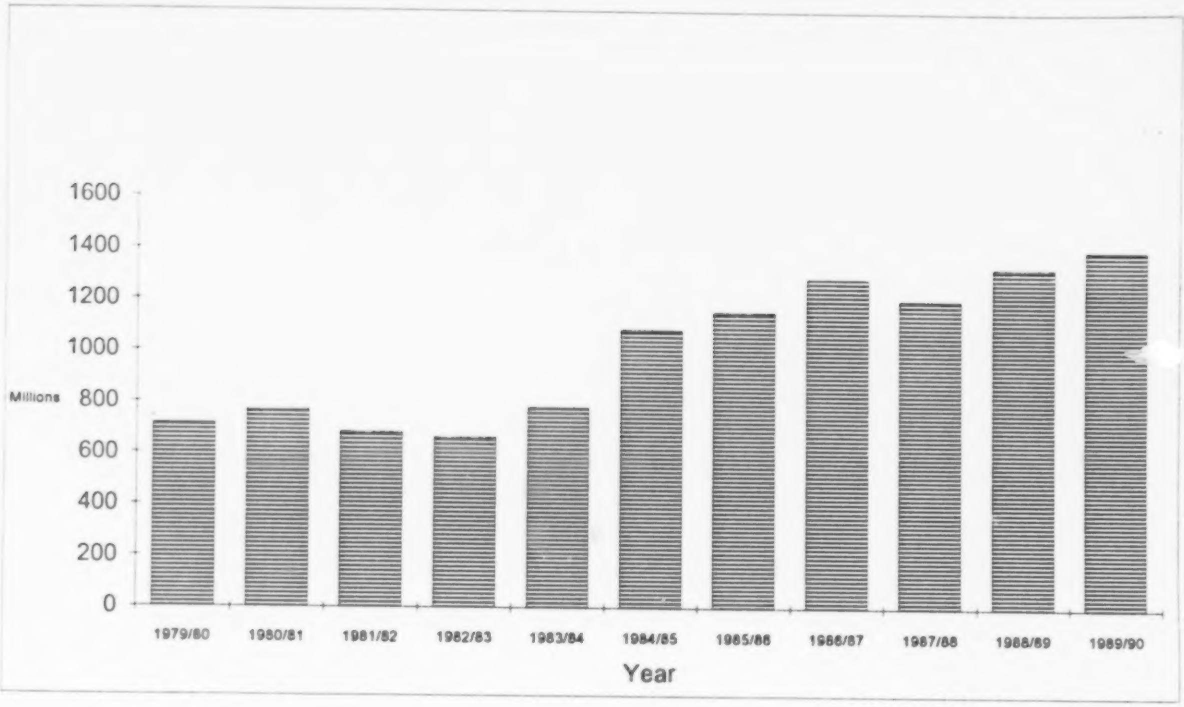
South Australia has a significant finance, property and business services industry which grew rapidly in the late 1980s. In part, rapid growth in the industry has reflected deregulation of the banking industry in the early 1980s, when a number of new banks commenced operation in Australia, and Standard Chartered located its headquarters in South Australia. In addition, there appears to have been a change in consumer demand patterns, with greater demand by individuals for financial advice (i.e. accounting services and investment advice).

As a consequence, as shown in Figure 7 below, between 1979/80 and 1989/90, the output of this industry grew dramatically in South Australia (measured in terms of changes in gross domestic product at factor cost in constant 1984/85 prices).

Indeed, the gross product of South Australia's finance, property and business services industry division rose by 9.7 per cent a year, on average, between 1979/80 and 1989/90. By comparison the State's gross domestic product grew by only 3.2 per cent a year over this period.

As a result of this high rate of growth of output, the *share* of State gross domestic product contributed by the finance, property and business services industry division increased significantly in the decade to 1989/90. Whereas this industry contributed 5.2 per cent of South Australia's gross domestic product in 1979/80, by 1989/90 the industry contributed 8.0 per cent of South Australia's gross domestic product.

Figure 7: South Australia: Gross Product of the Finance, Property and Business Services Industries, 1979/80 to 1989/90 in Constant 1984/5 Prices



Sources: Australian Bureau of Statistics, 1989/90 *Australian National Accounts, National Income And Expenditure* Cat. No. 5204.0 and Australian Bureau of Statistics, *Australian National Accounts*, State Accounts, Cat. No. 5202.0

- ***Recent Changes in Employment in the Finance, Property and Business Services Industry Division in South Australia***

Strong growth in the finance, property and business services industry division in South Australia in the late 1980s led to strong growth in employment, in this industry, in the period between August 1987 and August 1991 (although, with the onset of the recession, employment declined somewhat in this industry in the year to August 1991). Between August 1987 and August 1991, total employment rose by 17.0 per cent in this industry division in South Australia, far exceeding the 5.9 per cent increase in total State employment over this period (see Table 12 below).

Table 12: Changes in Employment in South Australia's Finance, Property and Business Services Industry Division between August 1987 and August 1991

Year	Males	Females	Persons
1987	29819	23225	53044
1988	28865	29059	57924
1989	32377	30444	62821
1990	30486	32424	62910
1991	31172	30881	62053

Source: Australian Bureau of Statistics, Labour Force Survey data on microfiche

As shown in Table 12 above, female employment increased more rapidly than male employment in the finance, property and business services industry in South Australia between August 1987 and August 1991. Female employment in this industry increased by 33.0 per cent in the period between August 1987 and August 1991 whereas male employment rose by 4.5 per cent. As a consequence, by August 1991 female employment represented a significantly greater proportion (49.8 per cent) of employment in this industry than was the case in August 1987 when female employment accounted for 43.8 per cent of employment in South Australia's finance, property and business services industry.

- *A Profile of the Accounting Services Sub-division Within South Australia*

The accounting services sub-division comes within the finance, property and business services industry division. However there is only limited official ABS data available concerning the activities of the accounting services sub-division, especially at a State level, and the available data is dated and time series data is not available.

Table 13 below, presents a snapshot of South Australia's accounting services industry as at 1987/88. As the data in Table 13 indicates, in 1987/88 (the latest data available from the ABS) there were 503 enterprises engaged in providing public accounting services in South Australia, with a turnover of $153 million. These enterprises employed nearly 4000 persons, who earned wages and salaries of $37 million. Reflecting the fact that many accounting firms are operated by partners rather than employees, net operating surplus, of $35 million in 1987/88, was relatively high.

Table 13: Statistical Profile of the Accounting Services Industry in South Australia, 1987/88

No of Enterprises	503
Wages and Salaries ($m)	37
Turnover ($m)	153
Gross Product ($m)	76
Net Operating Surplus ($m)	35
Proprietors (No)	583
Employers (No)	2208
Employees of Service Enterprises (No)	971
Total Employees (No)	3762

Source: Australian Bureau of Statistics, *Professional and Business Services, Summary Statistics, Australia, 1987/88*, Cat. No. 8662.0.

- *Recent Trends in Demand for Accounting Services*

The available evidence suggests there has been a substantial increase in demand for accountants services in Australia and South Australia in the past decade. For example, in the Review of Accounting in Higher Education the Department of Employment, Education and Training stated:

> *In every seminar it was agreed that the demand for accountants had increased dramatically in the last decade.*[6]

The Review largely attributed the increase in accountants services to changes in legislation, taxation and regulatory requirements including:

> *regulation of financial markets and resulting growth of new types of financial institutions; the introduction of capital gains tax and fringe benefits tax and of self-assessment; changes to the law relating to workers' compensation insurance; changes in corporate affairs regulatory requirements; and the continuing development of professional accounting standards.*[7]

Another key factor discussed by DEET which led to growth in demand for accountants services over the 1980s was the change in role of many large chartered accountants in the 1980s. Representatives of large chartered accounting firms providing evidence to the DEET Review of Accounting in Higher Education commonly stated that their businesses had expanded into other areas such as business consulting, computing services and human resource management.

DEET also suggested that there was substantial growth in demand for accountants' services in the *public* sector over the 1980s (in most States). DEET stated:

> *The increased level of accountability expected in government agencies has been accompanied by a move from cash to accrual accounting methods in government accounting, by a search for better methods of performance appraisal in government administration and by the requirement that government accountants prepare reports conforming to professional standards. The role of the auditors-general has expanded beyond verification of transactions and their authorisation to effectiveness and efficiency audits. The trend to commercialisation and privitisation of governmental agencies also has generated increased demand for accounting expertise. An indication of the magnitude of this increased demand from the public sector was provided in a number of seminars. At the Canberra seminar the Second Commissioner of Taxation indicated that, in 1988 and 1989, the Australian Taxation Office had been able to recruit only about half the number of graduates that it required. Its recruitment needs were expected to double in 1990 and to remain high until at least 1992.*
>
> *A representative of the Victorian Public Service Board at one of the Melbourne seminars indicated that during the last seven years the adoption of program budgeting by the Victorian Government had increased substantially its need for professionally qualified accountants.*
>
> *The increase in accounting requirements in the public sector has affected the demand for accounting services provided on contract by private sector firms. A Melbourne seminar was told by a representative of one of the large chartered accounting firms that the commitment of the Victorian Government to move toward more comprehensive audits of government units will lead to an increased demand for contracted services over the next five years.*[8]

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[6] Department of Employment, Education and Training (1990) *Accounting in higher education, Report of the Review of the accounting discipline in higher education, Vol. 2, Surveys and consultations, p.183*

[7] Ibid.

[8] Ibid. p.183

3.3.3 The Outlook for South Australia's Accounting Industries in the Next 3-5 Years

This sub-section discusses the outlook for South Australia's accounting services industry in the next 3-5 years. The outlook for the accounting services industry, as well as the broader financial and business services industry division, will be a key determinant of the employment outlook for persons completing the SADETAFE Associate Diploma in Accounting.

Factors which will significantly influence developments in the accounting services industry in South Australia over the next 3-5 years include:

- general economic conditions (although as highlighted earlier in this report, the main focus of this analysis is with respect to longer term deterministic influences, rather than short term economic influences);
- patterns of community demand for accounting services;
- possible changes in legislation (e.g. the potential introduction of a goods and services tax); and
- technological change.

▪ *The Short-Term Economic Outlook*

The national economy has now begun to recover from the 1990/91 recession, with national gross domestic product now having risen for three successive quarters, albeit by modest amounts. This suggests that short term economic factors may now be beginning to have a somewhat more positive influence on demand for accounting services. However, the recovery to date has at best been of modest proportions and there have been substantial differences in the rate of recovery on a state by state basis. South Australia, recent employment data suggests, appears to be lagging behind the other states in this regard.

▪ *Changes in Community Demand for Accounting Services*

There have been significant changes in community demand for public accounting services in the past decade, as individuals have become more aware of the need for more professional advice in respect to personal taxation matters, especially following the introduction of self assessment and more widespread auditing of personal taxation records by the Australian Taxation Office. Reflecting this change in community demand patterns, by 1991 some 60-70 per cent of personal taxation returns were prepared by taxation agents, which is generally considered to be a much higher proportion than in the early in 1980s.

There have also been changes in the pattern of corporate demand for accounting services in South Australia and nationally in the past decade, in the wake of deregulation of financial markets in the mid-1980s and significant revisions to corporate taxation matters such as tax rates and depreciation schedules and changes in sales tax legislation. In addition, small business has seemingly become more aware of the need to maintain comprehensive financial records not only for taxation purposes but also as a business management tool. Growth in corporate and business insolvencies arising from the 1990/91 recession also seem likely to increase demand for accounting services in the next 3-5 years.

▪ *Changes in Legislation*

Changes in Commonwealth and State legislation have the potential to significantly change the level of demand for accounting services in South Australia, especially in respect to accounting services provided for the State's business community. The importance of legislative changes in this context can be gauged from the major increase in activity which occurred in the State's finance property and business services industry following deregulation of financial markets and the entry of foreign banks by the Commonwealth Government in the mid-1980s.

Changes in Commonwealth legislation which have already been announced which will influence the level of demand for accounting services in South Australia in the next 3-5 years include:

- Changes to finance and banking legislation arising from the recent report by the Commonwealth House of Representatives Standing Committee on Finance and Public Administration on Banking and Deregulation which makes recommendations concerning entry of new banks to the Australian market place, changing existing non bank financial intermediaries to banks if their turnover is of a certain magnitude, increases in prudential supervisory activities by the Reserve Bank of Australia, that all banks adopt a system of regular audits of all branches, improvements in financial advice to small business and rural borrowers as well as improvements in consumer protection.[9]
- Changes in Commonwealth superannuation legislation which have occurred in the past 12-24 months, e.g. placing greater emphasis on occupational superannuation.

In addition, the potential introduction of a goods and services tax by the Liberal National Party Coalition (if elected to office) would seem likely to have a major impact on demand for accounting services. Both small businesses and large businesses would require advice on the implications of the change in legislation for their business and would probably need to adopt new accounting conventions to deal with the change in legislation.

Changes in *State* legislation will also have an effect on demand for accounting services. For example, the recent decision by the South Australian State Government to permit gambling via poker machines in hotels will entail a need for significant monitoring and prudential supervision of hotels activities in a fashion which did not exist hitherto.

▪ *Technological Change*

Technological change has had a significant impact on the accounting industry in the past decade. The availability of PC based spreadsheets (e.g. Visicalc, Lotus 123) and accounting packages (e.g. Sybiz) has resulted in significant changes in accounting methods. Accounting activities in computerised offices are potentially much more efficient in terms of data entry and manipulation than is the case in manual accounting systems, which required much more human interface.

The potential increase in efficiency in accounting offices seems likely to have adversely influenced demand for persons working in accounting with lower order skills in the past decade (e.g. accounts clerks). However, technological change in office environments has created a demand for persons with new skills (i.e. computer literacy, capacity to use computer-based accounting software packages). At the same time, the increases in amounts and complexity of available information has resulted (according to anecdotal evidence gathered during this project) in an increase in demand for analysis of financial information by persons with paraprofessional and/or professional skills who can advise clients and/or the organisations for which they work of the implications of changes in financial outcomes.

Thus, to a large degree, the electronic invasion of accounting offices has already taken place in the 1980s. Most larger organisations, whether in the public or private sectors, would, by now, seem likely to have computer-based accounting systems in place, as would the vast majority of firms providing public accounting services. Given the moderate price of PCs and accounting software, technology transfer to smaller organisations would also seem likely to be well advanced.

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[9] House of Representatives Standing Committee on Finance and Public Administration (1991) *A Pocket Full of Change, Banking and Deregulation*, from Conclusions and Recommendations, pp.xxi to lxvii.

Hence in the next 3-5 years technological change seems unlikely to significantly influence demand for accounting personnel, although the increase in demand for more sophisticated financial analysis referred to above seems likely to intensify rather than abate in the next 3-5 years.

■ *Some Conclusions Concerning the Outlook for the Finance, Property and Business Services Division and the Accounting Services Sub-division*

In recent years South Australia's finance, property and business services industry division has grown rapidly, with both output and employment rising. The industry's rapid expansion appears to have resulted, to a large degree, from the Commonwealth government's deregulation of the national financial system as well as changes in community utilisation of accounting and financial advisory services (the latter, at least in part, reflecting concern over the results of legislative changes in the past decade.)

As a consequence, South Australia now has a more substantial finance, property and business services industry than hitherto.

In the longer term, as noted above, the main factors which seem likely to influence activity levels in the finance, property and business services industry division, and especially within the accounting services sub-division include pending and possible changes in Commonwealth and State legislation, technological change and changes in community demand patterns for accounting services.

As was the case in the 1980s, it appears likely that legislative changes will enhance growth in the finance, property and business services industry division, and the accounting services sub-division, in the next 3-5 years. However, it does not seem likely that changes in legislation will provide as large a stimulus to growth in this industry as was the case in the 1980s.

Technological change, according to industry sources such as the Australian Society for Certified Practising Accountants, is not likely to have as marked an impact on the financial services industry as was the case in the 1980s when use of personal computers in office environments became widespread. However, the Society noted that technology transfer to smaller offices will continue in the next 3-5 years, and that the use of computers means that sophisticated data is more readily available for analysis by professional accounting personnel.

There have been significant changes in public demand for accounting services in the last decade as the public has increasingly sought advice concerning investment and taxation matters in the light of frequent changes in legislation. This trend seems likely to continue.

3.3.4 The Labour Market Outlook for Persons Completing the Associate Diploma in Accounting in South Australia in the Next 3-5 Years

■ *Introduction*

As discussed in Section 2.3 above, there is no clear occupational outcome in the Australian Standard Classification of Occupations or relevant industrial awards from undertaking the Associate Diploma in Accounting through SADETAFE. This section discusses the outlook for closely related occupations, i.e. accountants and accounting clerks, in South Australia in the next 3-5 years.

The analysis includes:

- discussion of factors influencing *new demand* for accounting personnel (new demand arises when increases in demand for the goods or services produced by a particular industry require additional or new labour to be engaged to produce the additional goods or services);

- factors influencing replacement demand (replacement demand occurs through wastage from an occupation where people retire, leave the occupation through sickness, or leave the occupation for another job in a different occupational area e.g. for better pay, or because working conditions are unpleasant);

- a review of the supply of persons completing the Associate Diploma in Accounting through SADETAFE (sources of supply include vocational training [e.g. through apprenticeship], skills acquisition through on-the-job training, and immigration by workers possessing relevant skills).

- ***Likely Changes in New Demand for Persons Completing the SADETAFE Associate Diploma in Accounting in the Next 3-5 Years***

It appears likely that demand for accounting personnel with TAFE middle level vocational training has risen sharply in recent years. Indeed, at the national level, in his Delphi study of paraprofessional accounting, Professor W.P. Birkett suggested:

> *The employment of paraprofessional accountants has been estimated as growing at the rate of 10 per cent per annum from 1984-1987, and at 7.8 per cent per annum from 1988-1990. Over the same periods the demand for paraprofesional accountants is estimated as exceeding supply, on average, by 10.1 per cent and 5.4 per cent per annum respectively.*[10]

(Unfortunately, however, this report did not distinguish between *new* demand and *replacement* demand for persons with middle level qualifications.)

According to DEET, in the future:

> *The demand for professional accountants depends more on the growing complexity and competitiveness of the business environment than on economic fluctuations.*

That is, as discussed in Section 3.3.2 above, the main longer term determinants of demand for accountants' services include factors like changes in legislation, technological change and changes in consumer tastes and preferences.

As concluded in Section 3.3.2 above, it seems likely that recent, pending and possible changes in legislation will provide the main stimulus to growth in demand for accounting services in the next 3-5 years, both nationally and in South Australia. The growing complexity of the business environment, coupled with public demand for more emphasis on detailed financial data being available to the public (as a consequence of widely perceived weaknesses in the corporate accounting methods of many of Australia's leading businesses) also seems likely to stimulate demand for accounting services. Increased emphasis on accountability in the *public* sector will continue to increase new demand for accountants. To some degree, technological change will also foster increases in demand for professional accounting services, as more sophisticated financial information becomes readily available for analytical purposes, although as discussed in Section 3.2.3 above, substantial technological change, via the information revolution through widespread use of personal computers in the office environment, has already taken place in the financial sector in the 1980s.

However, while these factors will positively influence demand for accounting services, especially more sophisticated accounting services, in South Australia in the next 3-5 years, it does not appear likely that the rapid rate of growth in demand for accounting services which occurred in South Australia and nationally in the 1980s as a result of deregulation of Australia's financial market place will be repeated in the 1990s.

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[10] Birkett, W.P. (1990) *The demand for and supply of education for para-professional accountants* p.1.

- *Replacement Demand for Persons Holding the SADETAFE Associate Diploma in Accounting*

Results of the literature survey which form the basis for this project suggest there is little, if any, published work available which discusses *replacement demand* for accounting personnel, especially at a paraprofessional level.

For example, the Commonwealth Department of Employment, Education and Training did not review the occupation of accountants in its publication 'Separation from Skilled Occupations, an Analysis of 1986 Census Data for Selected Major Professions, Paraprofessions and Trades'. The subject of *replacement* demand for paraprofessional accountants was also not separately discussed in Professor W P Birkett's Delphi study 'The Demand for, and Supply of Education for Paraprofessional Accountants'. As noted above, Professor Birkett reviews changes in demand for paraprofessional accountants in an aggregate sense rather than breaking demand changes down into changes in new demand and/or replacement demand. One exception is DEET's report 'Accounting in Higher Education' which discusses a survey prepared for the Institute of Chartered Accountants of Australia (ICAA) by S. Haswell, entitled 'Turnover Intentions in Chartered Accountancy'[11]. This study suggests a significant proportion of recent university graduates working for chartered accountants intended to move outside the field of chartered accounting. However, this study did not discuss persons leaving accounting to work in other occupations.

However, as discussed by DEET in 'Accounting in Higher Education' over the last decade the business environment has become increasingly complex and accountants have moved into information systems, management consulting, general financial advice, investment advice, property management and general business services[12]. In addition, it appears that accountants have increasingly tended to move into management positions.

This suggests there has been a significant level of replacement demand for university qualified accountants in the community (despite the fact that accountants are relatively well paid, have high esteem in the community and generally enjoy pleasant physical working conditions) which has possibly tended to foster increased demand for persons holding the SADETAFE Associate Diploma in Accounting.

However, with the onset of the 1990-92 recession, alternative employment opportunities for accountants have declined significantly. This would tend to reduce the number of accounting graduates leaving their home occupations in accounting related fields for alternative employment. This may have reduced the level of replacement demand for accountants which existed in the late 1980s.

- *Supply of Persons Holding the Associate Diploma in Accounting*

This subsection attempts to compare the numbers of graduates from the SADETAFE Associate Diploma in Accounting with the number of persons working in related occupations. This data can then be used to assess how adequate the rate of supply emerging from SADETAFE colleges is vis-a-vis the workforce, by comparison with other occupations.

It is, however, difficult to assess the adequacy of supply arising from undertaking the Associate Diploma in Accounting. As discussed in detail in Section 2.3 above, there are no clear occupational outcomes arising from undertaking the SADETAFE Associate Diploma in Accounting either in official occupational nomenclature or industry awards.

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[11] Department of Employment, Education and Training, (1990) *Accounting in Higher Education, Report of the Review of the Accounting Discipline in Higher Education, Vol. 2, p.144*

[12] Department of Employment, Education and Training, (1990) *Accounting in Higher Education, Report of the Review of the Accounting Discipline in Higher Education* Vol. 2, p.143

In 1990 DEET estimated that there were around 5000 persons working as accountants in South Australia of whom:

- 2400 were professionally qualified (i.e. had successfully completed a university course);
- 1300 to 1400 persons had sub-professional qualifications (e.g. TAFE middle level qualifications); and
- the remainder did not have recognised educational qualifications.[13]

However, the DEET estimate is somewhat below that provided by the Australian Bureau of Statistics in estimates from Labour Force Surveys. As shown in Table 14 below, the ABS data suggests there are around 7000-7500 persons working as accountants in South Australia. In addition, nearly 30000 persons work as accounting clerks, as shown in Table 15 below. Many of these persons are likely to hold sub-professional qualifications.

Table 14: Changes in Employment of Accountants in South Australia between August 1987 and August 1991

Year	Males	Females	Persons
1987	4362	980	5342
1988	3071	950	4021
1989	6422	1925	8347
1990	5985	1353	7338
1991	5228	1987	7215

Source: Australian Bureau of Statistics, Labour Force Survey data, on microfiche

Table 15: Changes in Employment of Accounting Clerks in South Australia between August 1987 and August 1991

Year	Males	Females	Persons
1987	9362	21274	30636
1988	6575	24089	30664
1989	7005	24246	31251
1990	6500	18364	24864
1991	7622	21367	28989

Source: Australian Bureau of Statistics unpublished Labour Force Survey data on microfiche

Data on the number of graduates from the SADETAFE Associate Diploma in Accounting suggest around 75/85 persons per year are completing this course. (However, this number seems likely to rise markedly in the next 3-5 years given, as discussed in Section 2.8 above, the remarkable increase in enrolments in this course between 1986 and 1990).

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[13] Department of Employment, Education and Training, (1990) *Career Prospects, South Australia, 1990/91, p.142*

The number of SADETAFE graduates, by comparison with the number of sub-professionally qualified accountants (as estimated by DEET) suggests supply from the SADETAFE Associate Diploma is in the region of 6 per cent a year, a relatively high rate of supply.

[Definitive data is not available concerning the number of university graduates with accounting qualifications each year in South Australia (Adelaide University does not distinguish between persons completing economics degrees with or without accounting majorities). However, assuming that one third of Adelaide University's economics graduates do have accounting majorities, this suggests there are around 300 accounting graduates per year in South Australia, representing an annual supply of 4.1 per cent of the ABS' estimate of the State's workforce of accountants (i.e. a reasonable rate of supply). That is, it does not seem likely that a shortage of supply of degree qualified accountants exists in South Australia and hence, the seemingly adequate rate of supply of university qualified accountants does not seem likely to result in demand rising for the substitute, persons holding the SADETAFE Associate Diploma in Accounting.]

- *Some Conclusions Concerning the Labour Market Outlook in the Next 3-5 Years for SADETAFE Graduates from the Associate Diploma in Accounting.*

The preceding analysis suggests that in the next 3-5 years, in South Australia:

- not withstanding the adverse effects of the 1990/92 recession on demand for accounting services, *new* demand for accountants (including persons with TAFE middle level training) is likely to continue to increase in the next 3-5 years, although it seems unlikely that new demand for accounting services will increase as rapidly as in the 1980s when deregulation of Australia's financial markets substantially increased new demand for accountants. Major factors likely to underpin growth in new demand include pending and anticipated changes in Commonwealth and State legislation, increased emphasis on accountability in the public sector, the continuing effects of technological change, and changes in public demand for accounting services.
- *replacement* demand is likely to continue to be important given the tendency for accountants to increasingly move into non-traditional roles.
- however, *supply* of accountants with middle level qualifications appears relatively high in South Australia (although as discussed above, it is difficult to be definitive).

3.4 Recent and Likely Trends in Employment of Mechanical Engineering Associates in South Australia

3.4.1 Introduction

This Section of the report discusses recent trends in employment of mechanical engineering associates in South Australia, and discusses the employment outlook for mechanical engineering associates in South Australia in the next 3-5 years. As outlined earlier in Section 3, occupational demand is a derived demand, where demand for a particular occupation (in this case mechanical engineering associates) is determined by demand for goods and services produced by the industries where persons working in this occupation are generally employed (largely, in the case of mechanical engineering associates, manufacturing industry, especially in the other machinery and equipment, transport equipment and basic metal products sub-divisions, as outlined in Section 2.3 above).

This Section therefore discusses recent and likely trends in South Australia's manufacturing sector (as demand trends in the State's manufacturing sector will be of major significance in determining the extent of demand for mechanical engineering associates in the State economy) before going on to discuss recent trends in employment of mechanical engineering associates in South Australia.

The section concludes by discussing employment prospects for mechanical engineering associates in South Australia in the next 3-5 years.

3.4.2 Recent Trends in South Australia's Manufacturing Industry

- *Introduction*

South Australia has a substantial manufacturing industry. In 1989/90 the State's manufacturing sector contributed 18.4 per cent of South Australia's Gross State Product (latest data available at the time of writing).[14]

Table 16 below presents disaggregated data on employment, wages and salaries, turnover and number of establishments in respect to South Australia's manufacturing sector in 1989/90. In terms of employment and turnover the most important sub-divisions in South Australia's manufacturing sector are the transport equipment, food beverages and tobacco, and other machinery and equipment industries.

In the past decade, however, South Australia's manufacturing sector has been under sustained pressure to restructure its operations and become more efficient in order to compete more effectively in domestic and overseas markets.

Table 16: Characteristics of South Australia's Manufacturing Sector, 1988/89

Industry	Employment (No.)	Turnover ($mill)	Wages and Salaries ($mill)	No. of Establishments
Food, beverages and tobacco	16471	2482.2	349.6	450
Textiles	2520	379.6	55.3	59
Clothing & footwear	4232	274.8	73.7	140
Wood, wood products and furniture	8459	749.1	156.4	595
Paper, paper products, printing and publishing	8054	842.6	199.6	330
Chemical, petroleum and coal products	2361	516.4	62.8	63
Non-metallic mineral products	3989	554.2	96.6	165
Basic metal products	7697	1444.7	218.5	57
Fabricated metal products	9258	875.5	184.2	584
Transport equipment	18868	2891.0	445.1	203
Other machinery and equipment	15596	1426.3	334.8	486
Miscellaneous manufacturing	7558	752.0	156.7	323
Total Manufacturing	105063	13188.4	2333.3	3455

Source: Australian Bureau of Statistics, *Manufacturing, South Australia, 1988/89* Cat.No. 8209.4.

As a consequence of these sustained competitive pressures, South Australia's manufacturing sector has not grown as rapidly as other areas of the State economy in the past decade. In constant 1984/85 prices, growth in output (gross product) in South Australia's manufacturing sector between 1979/80 and 1989/90 averaged 0.9 per cent a year, compared with 3.2 per cent a year average growth in Gross State Product between 1979/80 and 1989/90.[15]

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[14] Source: Australian Bureau of Statistics, *1989/90 Australian National Accounts, State Accounts*, Cat. No. 5220.0, Table 13, pp.12 and 13

Reflecting the lower rate of growth in the manufacturing sector vis-a-vis other areas of the State economy, the contribution of the manufacturing sector to Gross State Product (at factor cost) declined from 20.1 per cent in 1979/80 to 18.4 per cent in 1989/90.

- *Recent Changes in Employment in South Australia's Manufacturing Sector*

Employment declined steadily in South Australia's manufacturing sector between 1971 and 1986, a period when South Australia's manufacturers generally struggled to meet international competitive pressures, especially from the newly industrialised countries of North Asia. More recently, as shown in Table 17 below, employment increased in South Australia's manufacturing sector in the period between August 1987 and August 1991. Indeed, between August 1987 and August 1991, employment increased more rapidly in South Australia's manufacturing sector (7.9 per cent) than in the State economy as a whole (5.9 per cent). However, employment did not increase consistently in South Australia's manufacturing sector over the period between August 1987 and August 1991. While manufacturing employment increased markedly in South Australia between August 1987 and August 1989 (a period of relatively strong growth in the national and State economies), more recently employment has declined in South Australia's manufacturing sector (reflecting the impact of the recession). However, notwithstanding the recent decline in employment in this industry, South Australia's manufacturing employment was still significantly higher in August 1991 than in August 1987.

Table 17: Changes in Employment in South Australia's Manufacturing Sector between August 1987 and August 1991

Year	Males	Females	Persons
1987	76244	22152	98396
1988	81227	23578	104805
1989	88892	31126	120018
1990	85069	26871	111940
1991	78677	26909	105586

Source: Australian Bureau of Statistics, Labour Force Survey data, unpublished data on microfiche.

- *Some Conclusions Concerning Recent Trends in South Australia's Manufacturing Sector.*

South Australia's manufacturing sector has grown relatively slowly in the past decade, reflecting the severe international competitive pressures faced by this industry over the past decade as well as the decline in the proportion of national consumption expenditure in respect to manufactured goods. Consequently South Australia's manufacturing sector contributes a smaller share of State Gross Product than was the case a decade ago. However, employment increased in the South Australian manufacturing sector between August 1987 and August 1991 although falling late in the decade.

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[15] Ibid. Conversion to 1984/84 prices was achieved by using GDP implicit price deflators (non farm GDP for manufacturing and the GDP implicit price deflator for the overall State economy).

3.4.3 The Outlook for South Australia's Manufacturing Sector in the Next 3-5 Years

- *Introduction*

This sub-section discusses the outlook for South Australia's manufacturing sector in the next 3 - 5 years. Activity levels in the State's manufacturing sector will be a key determinant of new demand for mechanical engineering associates in South Australia in the next 3-5 years because, as discussed in Section 2.3, the majority of persons working as mechanical engineering associates in South Australia are employed in the State's manufacturing sector.

Factors which have the potential to significantly influence South Australia's manufacturing industry in the next 3 - 5 years include:

- the short term economic outlook in Australia (although the objectives of this sub-section is to focus discussion on longer term, rather than short term factors);
- micro-economic reform, especially scheduled reductions of tariff assistance to the State's manufacturing sector in the next five years;
- technological change;
- changes in consumer tastes and preferences;
- major new projects.

- *Short-Term Economic Factors*

Over the period from 1990 to 1992 the Australian economy has performed relatively poorly, which has adversely influenced the manufacturing sector, both in South Australia and nationally. At the time of writing, there are some tentative signs of recovery in the national and State economies and Australia's gross domestic product has now risen (albeit by small amounts) for three successive quarters. Both nationally and in South Australia, new house sales are increasing, as a result of significant reductions in housing interest rates in the past year.

The recovery in the residential construction market is of major importance to the manufacturing sector in South Australia, given the traditional importance of the white goods industry to the State economy. Increases in the rate of household formation, both in South and interstate, are likely to result in increased activity in the whitegoods industry as well as in the basic metal products and fabricated metal products manufacturing sub-divisions.

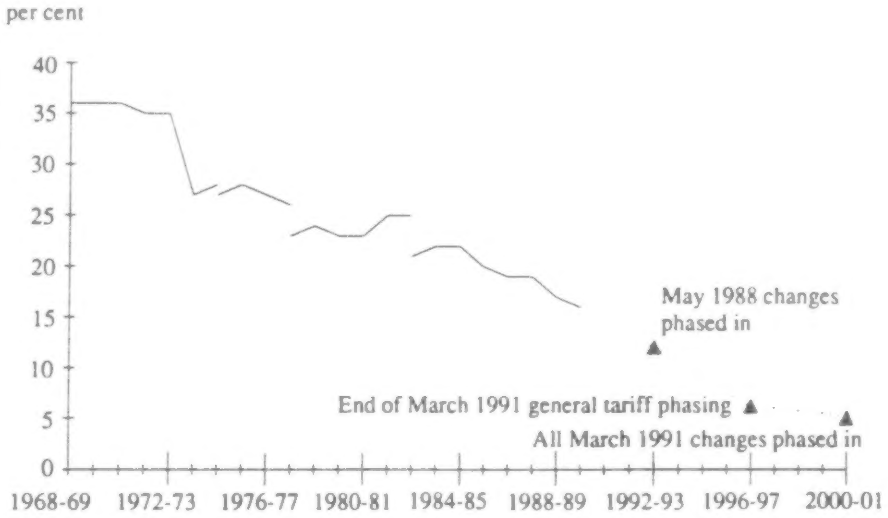
New car sales also seem likely to begin to increase in the next 12-18 months. Car loan charges have fallen significantly in the past year and the reduction in sales tax announced by the Prime Minister as part of the 'One Nation' package in February 1992 will also stimulate new car sales in the next 12-18 months. Increases in activity in the transport equipment industry would be of major benefit to the State economy. As discussed in Section 3.4.2 above, the transport equipment industry still provides more employment than other sub-divisions in South Australia's manufacturing sector.

- *Micro-Economic Reform*

In the past decade the Commonwealth Government has introduced a wide variety of measures intended to encourage Australia's manufacturing sector to become more internationally competitive. Tariff reductions, aimed at encouraging Australian industry to be less reliant on Government assistance, have been a major element in the Commonwealth Government's micro-economic reform agenda, which has also included major reforms in industrial relations practices (e.g. award restructuring), greater emphasis on vocational training and improvements in transport infrastructure. A program of further general reductions in tariffs on imported goods was announced by the former Prime Minister, Mr. Hawke, in an industry policy statement in March 1991. In its March 1991 Industry Policy Statement (IPS) the Commonwealth Government announced a continuation of the general tariff reduction program previously set in place in May 1988 and additional tariff reductions. Most tariffs are now scheduled to phase down to a nominal rate of 5 per cent by 1996, and there will be substantial reductions in tariff assistance for the textiles, clothing and footwear, and passenger motor vehicles industries.

The extent of the Commonwealth Government's tariff reduction program under the IPS is shown in Figure 8 below, which shows historic and prospective changes in tariffs over the period from 1968/69 and 2000/01. As Figure 8 below highlights, there will be substantial reductions in tariff duties on most imported goods in the decade to 2000/01. The schedule of tariff reductions announced by the former Prime Minister on March 1991 implies that South Australia's manufacturing sector will be under continued pressure to restructure its operations and become more internationally competitive in the next 3 - 5 years.

Figure 8: **Average Effective Rates of Tariff Assistance for the Manufacturing Sector 1968/69 to 2000/01**



The discontinuities represent a rebasing of the estimates using updated sales and cost data. Each of the four series is based on fixed patterns of production and materials usage (IAC 1985).

Source: Industry Commission, (1991) *Changes to Manufacturing Industry Assistance March 1991* p.16.

There is a vigorous debate in the contemporary economic literature concerning the likely effects of micro-economic reform on employment and output in the national manufacturing sector. Many commentators have suggested that the current program of micro-economic reforms, including substantial reductions in tariffs on imported goods, will enhance economic growth in Australia. For example, the Commonwealth Industry Commission and the Bureau of Industry Economics suggest tariff reductions will significantly enhance the national manufacturing sector's prospects over the next five years.

Reflecting this viewpoint, in July 1991 the Industry Commission stated:

> *The assistance reductions announced in the March 1991 Statement are projected to result in lower prices, increased competitiveness and an improvement in the allocation of the nation's resources. Simulations using the ORANI model of the Australian economy suggest that, on their own, the March 1991 manufacturing assistance reforms are likely to lead in the long run to a permanent increase in GDP of 0.4 percent or some $1.5 billion per annum in 1988/89 prices.*[16]

Table 18 below shows projections by the Bureau of Industry Economics (BIE) of potential changes in output in the *national* manufacturing sector and other areas of the economy for the period from 1988/89 to 1994/95. The BIE made forecasts of possible changes in national manufacturing output against a variety of scenarios. These scenarios ranged from a scenario of limited micro-economic reform and a relatively hostile macro-economic environment to a scenario involving high levels of micro-economic reform in association with a highly supportive macro-economic environment. The BIE's projections suggest that growth in national manufacturing will be greatest in a setting where micro-economic reform is significant and the macro-economic environment is supportive. Conversely, the BIE suggests growth in output will be slowest where micro-economic reform is minimal and the macro-economic environment is not supportive.

Table 18: Bureau of Industry Economics, Summary of National Broad Sectoral Level Forecasts for all Aggregate Scenarios, Annual Growth Rates of Output from 1988/89 to 1994/95 (Per Cent)

Scenario	Agriculture	Mining	Manufacturing	Services
Low micro-environment	4.45	3.16	4.03	1.60
High macro-environment	3.99	5.18	4.13	2.13
NC microeconomic scenario	0.48	1.10	0.82	0.54
LPF micro-economic scenario	1.63	4.62	3.39	2.10
L macro-NC micro (LNC) scenario	4.93	4.26	4.85	2.15
H macro-NC micro (HNC) scenario	4.47	6.28	4.95	2.67
L macro-LPF micro (LLPF) scenario	6.08	7.78	7.42	3.70
H macro-LPF micro (HLPF) scenario	5.62	9.80	7.53	4.23

Source: Gordon Schmidt, Bureau of Industry Economics, (1990) *Forecasting Economic Performance and the Structure of Industry in the 1990s, Working Paper No.58.*

Note: NC and LPF refer to the *no change* and *levelling the playing field* microeconomic scenarios.

However, some commentators have expressed concern that while the national manufacturing sector may experience significant growth arising from tariff reductions in the next 5 years, there will be major disparities in growth between industries and between regions.

Figure 9 below disaggregates the changes in nominal rates of tariff assistance arising from scheduled reductions in tariff assistance by manufacturing sub-divisions. It shows nominal tariff rates for each manufacturing sub-division as at 1989/90, at the end of the previous May 1988 program of general tariff reductions, and at the end of the March 1991 program of tariff reductions. While the rate of tariff assistance will fall substantially in most industry sub-divisions over the life of the tariff reduction program, the Figure highlights the substantial falls in tariff assistance which are scheduled for the transport equipment, other machinery and equipment and fabricated metal products sub-divisions. These sub-divisions, where tariffs will fall by the largest amounts under the March 1991 program of tariff reductions, provide a substantial proportion of total South Australian employment of mechanical engineering associates. In summary, South Australia's manufacturing sector will be under general, sustained pressure to restructure its operations as a result of tariff reductions over the next 3-5 years. In addition, the pressure for structural change will be centred on those key industries which provide a significant proportion of total State employment of mechanical engineering associates.

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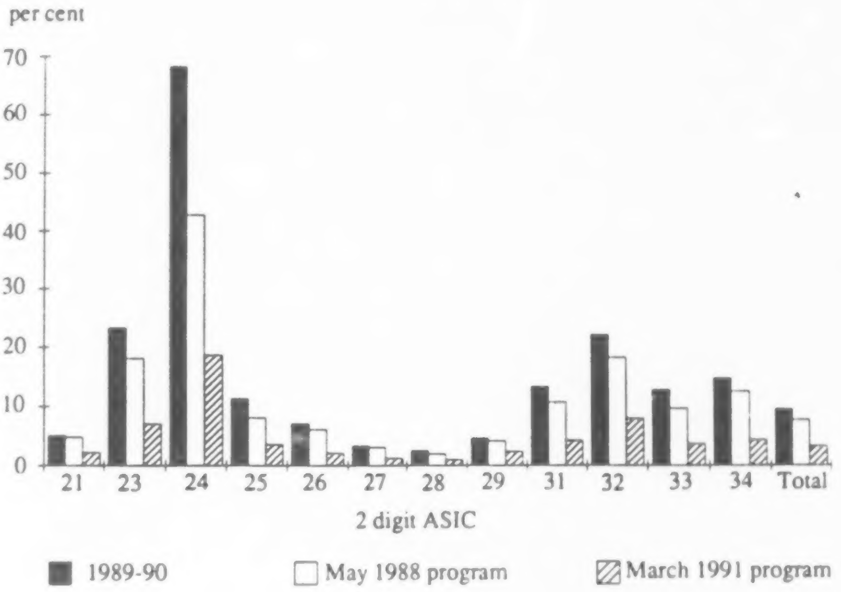
[16] Industry Commission, (1991) *Changes to Manufacturing Industry Assistance, March 1991, Information Paper*, p.2.

Figure 9: **Average Nominal Rates of Assistance on Outputs, by Manufacturing Sub-Division (Including Changes in May 1988 and March 1991).**



21	Food, beverages and tobacco
23	Textiles
24	Clothing and footwear
25	Wood, wood products and furniture
26	Paper, paper products, printing and publishing
27	Chemical, petroleum and coal products
28	Non-metallic mineral products
29	Basic metal products
31	Fabricated metal products
32	Transport equipment
33	Other machinery and equipment
34	Miscellaneous manufacturing

Source: Ibid. p.17

▪ *Possible Effects of Technological Change on South Australia's Manufacturing Sector in the Next 3-5 Years*

It appears likely that technological change will continue to have a significant impact on South Australia's manufacturing sector over the 1990s. However, it is possible that technological change could be of significant benefit to the State's manufacturing sector in the next decade.

For most of the period since the beginning of the Industrial Revolution technological change in manufacturing has generally been directed towards achieving cost reductions in manufacturing systems, through achieving economies of scale by mass production. Since the 1960s Australian manufacturers have increasingly struggled to meet international competitive pressures, because the Australian domestic market is, generally speaking, too small to use international best practice scale intensive manufacturing techniques.

That is, manufacturing organisations (both in Australia and overseas), have generally been oriented towards producing 'a single product in large volumes'[17]. Today, however, because customers are demanding the 'latest in technology and styling, the best in quality and competitive prices',[18] and a greater range of products in a shorter period of time, 'factories are no longer designed on the basis of required output volume only'.[19]

Escalating 'global' competitive pressures, and increasing pressure to make products which clearly stand out in the market,[20] are increasingly forcing manufacturing firms, both in Australia and overseas, to move away from the traditional 'Tayloristic' mode of production, characterised by 'fragmentation of work tasks and layers of supervising management'[21] towards an integrated system of manufacturing, typified by multi-skilled workers and the devolution of responsibility.[22]

Changes in consumer demands have increasingly forced companies to do away with traditional manufacturing approaches, so that they can 'respond quickly to the demands of a volatile market place'.[23] In doing so, one of the main goals of manufacturing organisations in the 1990s has become the 'ability to outpace competitors'.[24]

However, the ability to meet this goal depends a great deal on how successfully an organisation can incorporate more efficiency, quality and flexibility into their operations.[25]

As a result, there has been a concerted effort by a large number of manufacturing organisations (both in Australia and overseas), to integrate their operations and thus meet this goal by adopting new technology. This in turn permits 'competition to be based on product differentiation and responsiveness, rather than on economies of scale'.[26] New technology also allows companies to produce a greater variety of products 'cheaply, accurately and in small volumes'.[27]

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[17] Nemetz, P. L. (1990) *Human resource planning in flexible manufacturing organisations: Possibilities and concerns*. Manufacturing Review Vol. 2 No. 1 p. 17

[18] Bolwijn, P. T. and Kumpe, T. (1990) *The Success of flexible, low cost, quality competitors: A European perspective, European management journal*, Vol. 2 No. 2 p. 136

[19] Ibid., p. 139

[20] Bolwijn, P. T. and Kumpe, T. (1991) *Manufacturing in the 1990s: Productivity, flexibility and innovation*. Long range planning, Vol. 23 No. 4 p. 46

[21] Organisation for Economic Co-operation and Development (1988) *New technologies in the 1990s: A socio-economic strategy* p. 13

[22] Ibid., p. 13

[23] Nemetz, P. L. (1990) op. cit., p. 17

[24] Bolwijn, P. T. and Kumpe, T. (1990) op. cit., p. 137

[25] Ibid., p. 136

Advanced manufacturing technology (AMT) is increasingly being implemented by manufacturing firms in Australia and overseas to achieve a more integrated organisation. Programmable robots, eg. in GMH's, (Elizabeth, South Australia), assembly line, computer aided design (CAD), computer aided manufacturing (CAM) and computer aided planning (CAP) are but a few of the latest AMTs which are being increasingly adopted by Australian manufacturers.

These new technologies have the potential to markedly change the State's manufacturing sector. For example new technology has allowed Kodak in Europe to bring out 250 new products between 1986 and 1987.[28] It also allows Philips (Austria) to produce a new generation of audio cassette decks every 2-3 years.[29]

There are also a number of new management techniques associated with integrated manufacturing. These include just-in-time (JIT), total quality control (TQC) and total quality management (TQM).

In addition to new technology, overseas companies such as Olivetti (Crema, Italy), Fiat (Termoli, Italy) GEC Meters (UK), Philips (Althofen, Austria) have all attempted to become more flexible by reducing complexity in areas such as product design, factory layouts and organisational structure. All these companies are 'striving for excellence' by being 'flexible, low-cost quality producers'.[30]

Thus, in summary, technological change has the potential, providing South Australian manufacturing firms enthusiastically embrace the opportunity for change, to be of significant benefit to Australian manufacturers in the next decade. Technological change in the 1990s will allow greater emphasis on flexible manufacturing, innovative design and high quality production, rather than the previous situation where best practice manufacturing involved production in huge quantities to achieve scale economies so as to minimise production costs. This change in focus has the potential to be of significant benefit to South Australian manufacturing firms in the next decade, both in meeting competition from imported goods in the domestic Australian marketplace and in terms of creating new opportunities to enter overseas markets.

Against this background, it does not seem likely that technological change will pose a significant threat to the South Australian manufacturing sector in the next 3-5 years. Indeed, the advent of non-scale intensive manufacturing technologies implies the reverse, ie. that the technological change may produce new opportunities for South Australian manufacturers.

- *Changes in Consumer Tastes and Preferences*

Economic literature generally expresses the view that as an economy becomes more developed (ie. the economy moves from a focus on producing agricultural goods to a more advanced structure with well developed agricultural, manufacturing and service sectors) the proportion of consumer expenditure devoted to meeting physical needs such as clothing, food or housing tends to decline over time. This body of economic theory suggests that once these more basic material living needs are met, members of society increasingly devote a higher proportion of their income to expenditure on services. That is, persons in advanced economies tend to devote a larger proportion of their expenditure towards purchasing services such as travel, entertainment, health or financial services rather than on purchasing goods like food, cars and clothing.

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[26] Nemetz, P. L. (1990) op. cit., p. 18

[27] Ibid., p. 17

[28] Bolwijn, P T and Kumpe, T (1990), op. cit., p. 136

[29] Ibid., p. 137

[30] Ibid., p. 135

Consequently over time there is a substantial (and sustained) shift in consumer tastes and preferences away from purchases of manufactured goods towards purchases of services. The Australian economy, for example, where South Australian manufacturing produce is largely sold, has tended to exhibit this type of behaviour in the past decade. There has been a significant decline in the proportion of consumption expenditure devoted to purchase of material goods while the proportion of consumer expenditure devoted to purchases of services has expanded significantly.[31]

Between 1979/80 and 1989/90 total private consumption expenditure in Australia rose by 37.0 per cent in constant 1984/85 prices. By comparison, expenditure on items which can be readily identified as goods in data on private final consumption expenditure available from the Australian Bureau of Statistics (items such as food, cigarettes and tobacco, alcoholic drinks, clothing and footwear, books, purchase of motor vehicles) rose by 27.7 per cent over the same period in constant 1985/85 prices (i.e., the rate of growth in national outlays on goods did not match total increases in private final consumption expenditure and consequently the proportion of national consumption expenditure on manufactured goods fell in the decade to 1989/90).

Reflecting this long term change in consumer preferences, the proportion of Australia's gross product contributed by the manufacturing sector also declined over the 1980s. Whereas the national manufacturing sector contributed 19.2 per cent of national gross domestic product at market prices in 1979/80, by 1989/90 the manufacturing sector contributed only 15.9 per cent of national gross domestic product at market prices.

The implications of this marked long term change in the purchasing preferences of Australian consumers are of major significance to South Australian manufacturing firms, especially in an environment of, historically speaking, relatively low rates of national population growth. The low rate of national population growth, in association with the marked changes in consumer purchasing preferences discussed immediately above which were experienced in Australia over the 1980s implies that, unless consumer expenditure patterns return to those of earlier decades South Australian manufacturers will increasingly face, at best, a relatively slowly growing or stagnant domestic Australian marketplace for manufactured goods.

- *Major New Projects*

The adoption of major new projects would have the potential to significantly enhance activity levels in the South Australian manufacturing sector. For example, development of the Very Fast Train in the eastern states, or the introduction of a rail link between Adelaide and Darwin, would have the potential to markedly increase demand for steel products produced by BHP at Whyalla. (The redevelopment of the Adelaide/Melbourne rail link to standard gauge, as announced by the Prime Minister in his 'One Nation' of February 1992 package may also have significance in this regard).

It is not the aim of this paper to fully canvass whether such development opportunities will come to fruition. However, it is important that the potential impact of such major projects be appreciated, as major projects can have a major short-term impact on demand for certain types of labour, e.g. mechanical engineering associates, especially in the design stages, which would substantially increase demand for these persons.

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[31] For a more detailed discussion of patterns of economic evolution refer to a publication by Labour Market Analysis Branch, SADETAFE (1990) *TAFE Labour Market Issues*, Issue 4, "Emergence of the Post-Industrial Economy-Overview".

■ *Some Conclusions Concerning the Outlook for South Australia's Manufacturing Industry in the Next 3-5 Years*

In the short term, the major influence on South Australia's manufacturing sector will be the state of the national economy. Some partial economic indicators now suggest the national economy is beginning to recover from the 1990-1992 economic downturn, although, to date, the recovery has been of rather modest proportions.

In the longer term, the process of micro-economic reform, changes in consumer tastes and preferences, and technological change seems likely to have significant influences over the State's manufacturing sector.

It appears likely that the process of micro-economic reform will exert a negative influence over the State's manufacturing sector, given the State's relatively high dependence on certain comparatively highly assisted manufacturing industries. Changes in Australian consumer tastes and preferences (assuming the patterns of the 1980s are repeated in the 1990s) also seem likely to have a negative influence on the State's manufacturing sector.

On the other hand, technological change, if embraced enthusiastically by South Australian firms, has the potential to assist in the renaissance of the State's manufacturing sector. This will happen because many new technologies and associated management techniques will tend to reduce the previous need for scale economies in manufacturing.

3.4.4 The Outlook for Mechanical Engineering Associates in South Australia in the Next 3-5 Years

■ *Introduction*

This section of the report discusses the employment outlook for mechanical engineering associates in South Australia in the next 3-5 years.

The analysis includes:

- discussion of factors influencing *new demand* for mechanical engineering associates, (new demand arises when increases in demand for the goods or services produced by a particular industry require additional or new labour to be engaged to produce the additional goods or services);

- factors influencing *replacement demand* (*replacement* demand occurs through wastage from an occupation when people retire, or leave the occupation through sickness, or leave the occupation for another job in a different occupational area (eg. for better pay, or because working conditions are unpleasant));

- a review of the *supply* of newly qualified mechanical engineering associates (sources of supply include vocational training (eg. through apprenticeship), skills acquisition through on-the-job training, and immigration by workers possessing relevant skills);

- a summary of the outlook for mechanical engineering associates in South Australia in the next 3-5 years.

■ *Likely Changes in New Demand for Mechanical Engineering Associates in South Australia in the Next 3-5 Years*

As the discussion in Section 3.4.3 above indicates, the outlook for South Australia's manufacturing sector is relatively uncertain over the next 3-5 years.

While some factors are relatively positive and will tend to boost new demand for mechanical engineering associates to higher levels than would otherwise have been the case (eg. short term factors such as prospects of recovery from the 1990-1992 recession), other factors, (for example reductions on tariffs on imported goods) seem likely to adversely affect South Australia's manufacturing sector in the next 3-5 years.

Although it is still clearly too early to suggest the national economy has begun a sustained recovery Australia's gross domestic product has now risen for three successive quarters (albeit by low amounts). Some partial economic indicators also suggest underlying activity levels are beginning to improve in some areas in the national economy. House building application approvals, housing commencements and housing loan approvals are beginning to build up, with interest rates on residential construction now being at a twenty year low. The improvement in the fortunes of the residential construction industry will increase demand for manufactured inputs to construction such as bricks and steel and home appliances such as stoves. In addition, reductions in interest rates on loan finance in respect to motor vehicles may be beginning to have a positive impact on the State's beleaguered motor vehicle industry, which also seems likely to benefit from recent sales tax reductions on purchases of motor vehicles.

Certain micro-economic reforms, such as improvements in industrial relations practices leading to the development of a more co-operative rather than competitive industrial relations environment, and improvements to transport infrastructure will also tend to increase the international competitiveness of South Australia's manufacturing sector. This will assist South Australian manufacturing firms to compete more effectively in domestic and international market places. These positive micro-economic reforms will increase new demand for Mechanical Engineering Associates to higher levels than otherwise would have been the case.

Technological change also has the potential to increase demand for mechanical engineering associates in South Australia in the next 3-5 years. First, technological change seems likely to enhance the prospects of innovative firms, as discussed in Section 3.4.3 above. Second, technological change seems likely to result in increased demand for persons with skills in areas such as CAD/CAM and CIM, a primary focus of vocational training for SADETAFE mechanical engineering associates.

However, the sceptre of tariff reductions hangs heavily over the head of South Australia's manufacturing sector, especially in respect to those industries where employment of mechanical engineering associates in concentrated (ie. transport engineering, fabricated metal products and other machinery and equipment). If South Australia's manufacturing firms do not respond positively to the challenges of tariff reform then South Australia's manufacturing sector could contract significantly in the next 3-5 years. In turn, such a contraction would severely reduce new demand for mechanical engineering associates in South Australia.

(Some approaches to vocational education in engineering emphasise the concept of training engineering personnel at various levels by the "cement mix approach". Under this approach, for each professional engineer receiving training say two middle level technicians and three tradespersons also receive vocational training.

For example, the Prime Minister's Science Council in its paper entitled "Engineering in Australia", advocated this approach, noting that by international standards Australia trained relatively few engineers and engineering associates. This paper suggested that Australia train more engineers, and commented:

> *For engineering technologists and engineering associates the picture is unclear. Industry has clearly indicated that if such people were available in sufficient quantities, they would readily find employment. They would displace other less technically qualified persons in the existing engineering workforce, and form the basis of a more clever industry. A target could be to graduate 1.5 times the number of*

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engineering technologists and engineering associates compared to four-year graduates)[32]

- *Replacement Demand for Mechanical Engineering Associates*

In a review of this occupation dated April 1988, the South Australian office of the Commonwealth Department of Employment Education and Training (DEET) commented:

> *It seems that current occupational wastage is low. Previously, movement to the professional Mechanical Engineering level was easier than now seems to be the case, as a result, retirements form the bulk of wastage. Wastage then, runs at around 3 per cent - 4 per cent p.a.*

The Commonwealth Government has also examined wastage from professional and para-professional mechanical engineering occupations at the national level. In 'Separation From Skilled Occupations, An Analysis of 1986 Census Data For Selected Major Professions, Para-Professions and Trades' DEET stated:

> *Employment in the 'home' occupations of mechanical engineer and mechanical engineering associate and technician diminishes significantly and steadily over time:*
> - *only 44% were still working as mechanical engineers or mechanical engineering associates and technicians within two years of completing their diploma or higher qualification;*
> - *beyond this, the proportion employed as mechanical engineers or mechanical engineering associates and technicians fell further*
>   - *to 43% after 2-5 years*
>   - *to 41% after 6-10 years*
>   - *to 33% after 11-15 years*
>   - *to 29% after 16-20 years*
>   - *and to 21% after 20 years or more.*[33]

While the national DEET study of separation from professional and paraprofessional occupations is, admittedly, now somewhat dated and presents an aggregated picture of separations from both professional and paraprofessional occupations at a national level this study suggests a significantly higher rate of wastage from this occupation than DEET suggested was the case in 1988 in South Australia.

- *Supply of Mechanical Engineering Associates*

Supply of mechanical engineering associates arises from three main sources: first, upgrading the skills of existing mechanical tradespersons either through vocational training through TAFE or other providers (eg. in South Australia, the University of South Australia or as it was previously known, the South Australian Institute of Technology) or by on-the-job training; second, vocational training of persons not already working in the field of mechanical engineering; and third, immigration. Immigration, according to DEET, has not been a significant source of supply of mechanical engineering associates in recent years.

Supply through TAFE vocational training through the Associate Diploma in Mechanical Engineering occurs with respect to both the first and second situations described above.

There were approximately 210 graduates from Regency College of TAFE in the Associate Diploma in Mechanical Engineering between 1986 and 1991, an average supply of 35 graduates per year.

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[32] Prime Ministers Science Council (Co-ordinator, C. Fell) (1991) *Engineering in Australia*, p. 21

[33] Department of Employment, Education and Training, (1989) *Separation from skilled occupations, an analysis of 1986 census data for selected major professions, para-professions and trades*, p.54

Table 19 below shows Australian Bureau of Statistics Labour Force Survey estimates of changes in the number of persons employed in South Australia as mechanical engineering associates between August 1987 and August 1991. The labour force survey estimates suggest there has been a substantial reduction in the number of persons employed as mechanical engineering associates in South Australia in recent years, (possibly reflecting structural change in the State's manufacturing sector over recent years) and that by August 1991 only 498 persons were employed as mechanical engineering associates in South Australia (ABS labour force estimates are, however, subject to significant sampling errors in regard to estimates, as in this case, of relatively low magnitude).

Table 19: Changes in Employment of Mechanical Engineering Associates in South Australia between August 1987 and August 1991

Year	Males (No.)	Females (No.)	Persons (No.)
1987	980	**	980
1988	919	122	1041
1989	1399	**	1399
1990	511	**	511
1991	498	**	498

Source: Australian Bureau of Statistics, unpublished Labour Force Survey data on microfiche.

Note: Data suppressed by ABS because the standard error of estimates is too high for reliable use of the data.

Comparing average supply from SADETAFE with average employment of mechanical engineering associates in South Australia in the past three years suggests annual supply of qualified mechanical engineering associates represents nearly 4.0 per cent of the average State workforce (in this occupation in the three years to August 1991), a reasonable but not excessive rate of supply.[34] However, the University of South Australia also offers an Associate Diploma in Mechanical Engineering. (This course will continue, according to the University of South Australia, to be offered in the future.) The average number of graduates from this course represents an additional supply of 2.5 per cent of the average State workforce of mechanical engineering associates over the last three years. Taken together, this represents a significant rate of supply, especially when viewed in the context of the sharp decline in the number of persons employed as mechanical engineering associates in South Australia in the last three years. In addition, persons displaced from employment as mechanical engineering associates, as the manufacturing sector has down sized in the last 12-18 months are likely to attempt to regain work as mechanical engineering associates if employment opportunities become available.

- *Some Conclusions Concerning the Employment Outlook for Mechanical Engineering Associates in South Australia in the Next 3-5 Years*

The employment outlook for mechanical engineering associates in South Australia in the next 3-5 years is relatively uncertain. There has been a significant decline in the number of persons employed as mechanical engineering associates in South Australia in recent years. At least in part the decline in employment seems likely to have resulted from the competitive difficulties faced by the State's manufacturing sector in recent years.

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[34] Averaging employment and graduation data reduces the effects of major changes in number of graduates or employment in a particular year on the analysis. This is particularly important in respect to this occupation, where numbers employed are low and sampling error in Labour Force Surveys may be high due to the low numbers of persons employed as mechanical engineering associates in South Australia.

It appears likely that growth in *new demand* for mechanical engineering associates will again be constrained by structural adjustment caused by scheduled tariff reductions in the South Australian manufacturing sector in the next 3-5 years. However, more widespread adoption of integrated manufacturing processes utilising CAD/CAM or CIM methodologies could offset the influence of tariff reductions. While *replacement demand* has apparently been significant in this occupation, the supply of graduates from Regency College is likely to meet emerging demand given that growth in new demand will be constrained in the next 3-5 years and alternative sources of supply of mechanical engineering associates exist in South Australia.

However, on the other hand, the availability of a highly skilled workforce of mechanical engineering associates in South Australia, could itself add to demand for greater technological capacity by forward South Australian Manufacturing firms. SADETAFE (through Regency College of TAFE) is undeniably at the cutting edge of vocational training in Australia in regard to skills training in advanced manufacturing technologies.

Hence, while many factors suggest an uncertain outlook for mechanical engineering associates in South Australia in the next 3-5 years, the outlook could be somewhat volatile.

3.5 Recent and Likely Trends in Employment of Hospitality Managers in South Australia

3.5.1 Introduction

This Section of the report discusses recent trends in employment of hospitality management staff in South Australia and discusses the outlook for hospitality management personnel in South Australia in the next 3-5 years. As discussed in earlier parts of Section 3, occupational demand is a derived demand, where demand for a particular occupation (in this case hospitality management staff) arises from demand for the goods or services produced by industries (in this case the South Australian hospitality industry) in which persons employed in hospitality management occupations generally work.

For this reason, prior to discussing recent trends in employment of hospitality management, and the outlook for hospitality management personnel in South Australia in the next 3-5 years, this Section discusses the nature of South Australia's hospitality industry, outlines recent trends in the hospitality industry and examines likely trends in this industry in South Australia in the next 3-5 years.

3.5.2 Recent Trends in South Australia's Hospitality Industry

- *Introduction*

There is no precise, commonly accepted definition of the 'hospitality industry'.[35] For the purpose of this report, discussion includes the accommodation and bar industries, the cafès and restaurants industries, licensed clubs, convention centres and tourist attractions.

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[35] In its report entitled *Tourism: An Overview of Industry Structure and Employment* (1991) Tourism Training Australia (TTA) expressed similar concerns about defining the tourist industry and noted that the Australian Government Inquiry into Tourism (1986) had faced similar problems (p.1). TTA defined the hospitality industry as including accommodation operators, hotels, restaurants, licensed clubs and other catering establishments.

▪ *Characteristics of South Australia's Hospitality Industry*

South Australia has a substantial hospitality industry, which has grown significantly in the past decade, with the addition of several new international class hotels and the development of new tourist attractions. Major new hotels which have commenced operations in South Australia in the past decade include the Adelaide Hilton, the Terrace, the Hindley Parkroyal, the Hyatt Regency Adelaide and the Ramada Grand. In addition, many existing hotels have been substantially refurbished and updated including the Henley on Royal, Directors, the Unley on Clyde, Oxford, Astor and Green Dragon hotels. Adelaide also has a significant restaurant industry. Well known restaurants include Ayers House, Drumminor in the North East, Nediz Tu, the Pheasant Farm, Paul's Seafood Restaurant, the Starlight Room at Windy Point, and the Pullman Restaurant at the Adelaide Casino. Newer restaurants of note include Chloe's and Jarmers.

South Australia opened the first major purpose built convention centre in Australia in 1987. The Adelaide Convention Centre is capable of accommodating meetings for up to 3500 delegates.

South Australia's hospitality industry has also benefited from the development of several major new tourist attractions in the past decade. Attractions established in the past decade include the Australian Formula One Grand Prix, the Adelaide Casino, the Myer-Remm development in Rundle Mall and the recently opened Adelaide Entertainment Centre. These new ventures have augmented traditional tourist attractions such as South Australia's wine industries (including vintage festivals in the Southern Vales, the Barossa and Clare), and the biennial Adelaide Festival of Arts.

Some indication of the size of South Australia's hospitality industry may be gained from data concerning licensed premises in South Australia. As shown in Table 20 below, as at 30th June 1991 there were a total of 3238 licensed premises in South Australia. Excluding wholesale and retail liquor licences and producers licences, there were 2761 licensed premises in the State offering hospitality services, including 628 licensed hotels, 618 licensed restaurants, and vast numbers of unrestricted and restricted clubs (although based on data on licence fees, the activities of licensed clubs represent only a small proportion of South Australia's total hospitality activities).

Table 20: Licensed Premises in South Australia as at 30th June 1991

Category	No.
Hotel	628
Residential	133
Wholesale Liquor Merchant	113
Retail Liquor Merchant	159
Entertainment Venue	37
Restaurant Licence	618
Restaurant BYO	37
Producers licence	205
Unrestricted Clubs	321
General Facility	147
Restricted Clubs	840
Total	3238

Source: Australian Hotels Association, (1991), *Australian Hotelier* February 1991, p.144

Unfortunately, there is only limited data available from the Australian Bureau of Statistics concerning South Australia's hospitality industry and the data which is available is dated. The most recent data available from the Australian Bureau of Statistics providing financial and structural data concerning the Hotels, Bars and Accommodation industries in South Australia is for 1986/87. As shown in Table 21 below, in 1986/87 these industries generated value added of $249 million from a turnover of $618.2 million .

Table 21: Hotels/Bars and Accommodation Industries, Summary of Operations, South Australia, 1986/87

		Hotels & Bars	Accommodation
Enterprises at end June 1987	No.	558	280
Employment at end June 1987			
Males	No.	4229	1140
Females	No.	5053	2227
Total	No.	9282	3367
Wages and salaries	$m	92.7	37.7
Turnover 1986/87	$m	497.3	120.9
1979/80(a)	$m	492.3	89.5
1979/80(b)	$m	273.5	49.9
Value added	$m	176.0	73.1
Gross product	$m	124.7	57.4
Net operating surplus	$m	21.3	15.2

(a) At average 1986/87 prices. (b) Original series at 1979/80 prices.

Source: Australian Bureau of Statistics, *1986/87 Hotels and Bars and Accommodation Industries, Australia*, Catalogue No. 8656.0

Between 1979/80 and 1986/87 growth in turnover in South Australia's hotel and bars, accommodation and cafè and restaurants industries was of broadly similar magnitude to national growth in turnover (in 1986/87 prices). As shown in Table 22 below, turnover in South Australia's hotels and bars industries industry grew somewhat more rapidly than at the national level between 1979/80 and 1986/87 and somewhat more slowly in South Australia in the accommodation and cafès and restaurants industries.

Table 22: Growth in Turnover between 1979/80 and 1986/87 in Australia and South Australia (in 1986/87 Prices), in the Hotels and Bars, Accommodation, Restaurant and Café Industries.

	Australia (%)	South Australia (%)
Hotels and Bars industries	-0.4	1.0
Accommodation industry	45.4	35.1
Café and Restaurants industry	20.0	18.0

Source: Australian Bureau of Statistics, *Hotels and Bars and Accommodation Industries, Australia, 1986/87* Cat. No. 8656.0

- *Recent Employment Trends in the South Australian Hospitality Industry*

Data on growth on employment in the South Australian Restaurants, Hotels and Clubs industry between August 1987 and August 1991 is presented in Table 23 below.

Table 23: Employment in the Restaurant, Hotels and Clubs Industry in South Australia, August 1987 to August 1991

Year	Males	Females	Persons
1987	7807	113587	19165
1988	9952	14260	24212
1989	6841	13519	20361
1990	8386	14634	23020
1991	9347	15333	24680

Source: Australia Bureau of Statistics, Labour Force Survey Data, unpublished data on microfiche

As the data in Table 23 indicates, there has been significant growth in employment in South Australia in the restaurant, hotels and club industry in recent years. Between August 1987 and August 1991, total employment in these industries rose by 28.8 per cent in South Australia, with female employment rising by 35.0 per cent and male employment increasing by 19.7 per cent over this period. By comparison total employment in South Australia rose by only 5.9 per cent over the same period. The rate of employment growth in the restaurants, hotels and clubs industries was, therefore, considerably greater than for South Australia considered as a whole in this period.

In part, the substantial employment growth in the State's hospitality industries may reflect the opening of certain major new ventures over this period, e.g. the Hindley Park-Royal and the Hyatt International hotels in the central business district and the Ramada Grand Hotel at Glenelg.

- *Conclusions*

The preceding discussion indicates that South Australia has a substantial hospitality industry, which has grown significantly in the past decade, with the advent of new facilities, especially the Adelaide Casino, a major new attraction in the Australian Formula One Grand Prix, and the construction of major new hotels such as the Adelaide Hilton, the Hyatt Regency and the Ramada Grand. Reflecting growth in the South Australian hospitality industry, in the past decade, there has also been significant growth in employment in South Australia's hospitality industry.

In its Economic Briefing with respect to the South Australian economy for March 1992 the Centre for South Australian Economic Studies stated:

> *There is no question that tourism is an important and growing contributor to the Australian and South Australian economies. Tourism SA estimates that tourism in South Australia accounts for $1.6 billion of expenditure, and sustains over 30,000 jobs. This $1.6 billion incorporates the expenditure of international and interstate visitors to South Australia, and that of South Australians travelling within the state. One of the advantages of the tourism industry in comparison to the contribution of other industries, is that activity is concentrated in small businesses with a significant geographic spread (and particularly a non-metropolitan influence). It also has a high labour content and offers employment opportunities for a range of non-traditional skills.*

The tourism industry, including the hospitality sector, is therefore a significant industry in the South Australian State economy.

3.5.3 The Outlook for South Australia's Hospitality Industry in the Next 3-5 Years

Introduction

This sub-section discusses the outlook for South Australia's hospitality industry in the next three to five years. The outlook for the State's hospitality industry will be a key factor in determining the level of demand for hospitality management graduates in South Australia in the next three to five years. Factors which will significantly influence development in the hospitality industry in South Australia over the next three to five years include:

- general economic conditions (although, as previously discussed, the main focus of this report is on long rather than short term economic trends);
- demographic trends in South Australia in the next three to five years;
- the number of tourists and business travellers coming to South Australia and their pattern of expenditure;
- changes in legislation (e.g. relating to drink driving or the introduction of poker machines to hotels);
- changes in consumer tastes and preferences (e.g. changes in community patterns of alcohol consumption);
- the staging of new 'special' events in South Australia;
- the creation of new tourist attractions in South Australia and/or improvements to existing tourist attractions; and
- technological change (e.g. wider use of computer-based integrated accommodation booking systems).

General Economic Conditions

As noted above, the main focus of the analysis in this section is with respect to long-term, rather than short-term, economic trends. Notwithstanding this concern, it is appreciated that short-term economic trends can also have a major influence on the outlook for the hospitality industry.

At the time of writing, it does not appear likely that there will be significant growth in the national or South Australian economies in the next 12-18 months. The international outlook is poor, with simultaneous economic downturns in the United States, the United Kingdom and Japan, which will tend to reduce the rate of growth of Australia's exports. In addition, gross national domestic product has now increased, albeit modestly, for three successive quarters and housing activity is improving which suggests the national economy may be beginning to recover from the 1990-92 recession. As yet, however, there have been few signs of a *sustained* improvement in the national economy, with investment expenditure, in particular, currently being at relatively low levels.

The relatively adverse short-term economic outlook suggests the South Australian hospitality sector is unlikely to experience any significant increase in activity in the short-run. Moreover, the relatively adverse short-term economic outlook is likely to dampen investors' confidence, which will tend to result in fewer major new developments (e.g. new hotels) taking place in the hospitality sector, and the postponement or cancellation of proposed redevelopments of existing hospitality facilities.

■ *Demographic Trends in South Australia over the Next 3-5 Years*

Given that a substantial proportion of the South Australian hospitality industry's activities seem likely to arise from demand from South Australian residents, local demographic factors seem likely to be of significance in influencing activity levels in South Australia's hospitality industry. It seems unlikely that demographic factors will enhance the prospects of the South Australian hospitality in the next three to five years. Forecasts by the South Australian Department of Environment and Planning suggest the State's population is likely to continue to increase only moderately in the next three to five years.[36] In addition, by comparison with other States, a high proportion of South Australia's population is aged 70+, and the proportion of the State's population in this age group will increase significantly in the next decade. Persons in this age group do not seem likely to be significant consumers of traditional hospitality products (although increases in demand for aged care accommodation may positively influence demand for hospitality managers in South Australia in the next 3-5 years).

■ *The Potential Impact of Changes in Commonwealth and State Legislation in the Next 3-5 Years*

Changes in Commonwealth and/or State legislation have the potential to exert a major influence on the hospitality industry. For example, in recent years it seems likely the South Australian hospitality industry has been adversely affected by:

- reductions in the blood alcohol level from 0.08 to 0.05 per cent before drivers can be charged with driving with excessive blood alcohol levels;
- the introduction of random breath testing in South Australia; and
- changes in Commonwealth taxation legislation which led to business meals no longer being tax deductable.

A variety of changes in legislation have been announced already and more are possible. These could have either significant positive or negative influences on the South Australian hospitality industry. Positive changes include:

- the increase in depreciation allowances on new tourism related buildings from 2.5 to 4.0 per cent announced by the Prime Minister in his 'One Nation' package in February 1992;
- the introduction of poker machines to hotels in South Australia would probably increase demand for hotels' services;
- moves to scrap weekend penalty rates in the hospitality industry would seem likely to reduce production costs in the industry and hence may stimulate activity levels.

Less positively, the possible introduction of a goods and services tax under a national Coalition Government (if elected to office) would seem likely to have an adverse impact on demand for hospitality products, like accommodation and restaurant meals, although reductions in personal income tax rates could offset the adverse impacts of the package.

■ *Likely Trends in Tourism and Business Travel to South Australia in the Next 3-5 Years*

Tourists, as well as business visitors to South Australia, increase the level of demand for hospitality services provided by convention centres, hotels and restaurants, to levels above what would otherwise be demanded by the State's resident population. Therefore, growth in tourism to South Australia is of vital significance in determining likely activity levels in the South Australian hospitality industry.

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[36] Strategy Branch, South Australian Department of Environment and Planning, (1991) *Population Projections for South Australia and Statistical Divisions 1988-2021.*

As discussed in Section 3.5.2 above, the hospitality industry has grown significantly in South Australia in the past decade, reflecting, in part, growth in international tourism. Between 1980 and 1990 the number of international visitors to Australia increased on average by 9.4 per cent a year. Between 1984 and 1990, undoubtedly influenced by the advent of the Australian Formula One Grand Prix, international visitors to South Australia increased by 14 per cent a year.[37]

The Bureau of Tourism Research (BTR) suggests the rapid rate of growth in the number of international visitors to Australia which has occurred over the last decade is likely to continue in the next three to five years. The BTR has forecast the number of international visitors to Australia will rise by 50 per cent between 1990 and 1995.[38] The number of tourists from Japan, in particular, is expected to increase markedly, with the BTR recently forecasting that arrivals from Japan will increase by 80.8 per cent between 1990 and 1995.[39]

Assuming South Australia can maintain its share in the anticipated continued growth in the number of international visitors to Australia over the next three to five years, the anticipated increase in international tourism numbers will provide a sustained base for increases in activity in the South Australian hospitality industry.

The State's hospitality industry will also benefit if the number of trips by interstate residents to South Australia continue to grow at the rate experienced in recent years. Data from the Bureau of Tourism Research indicates interstate trips to South Australia increased by 4 per cent a year in the six year period to 1990/91.[40]

The rapidly growing convention business is also likely to provide a fillip to the State economy, according to a recent article in the Business Review Weekly, which stated:

> *Adelaide has become particularly strong in attracting meetings in the areas of medicine and technology. Several major international conventions have been staged recently, including the 21st International Cosmic Ray Conference and the 6th World Congress on Pain. Major events confirmed for the future include the 15th International Nutrition Congress and the 16th International Congress of Gerontology.*
>
> *Convention business in Adelaide has increased steadily over the past five years, with delegate numbers rising by an average 7% a year. Adelaide already has more than 600 conventions and meetings booked up until 1996, most for between 100 and 600 delegates.*[41]

- ***The Impact of Technological Change on the Hospitality Industry***

Technological change does not appear likely to result in major changes in the pattern of demand for products and services provided by the hospitality industry (i.e. food, beverages, accommodation) in the next three to five years. However, technological change may impact on the hospitality industry in the following areas, (which will change the pattern of demand for labour in the industry):

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[37] Ibid., p. 75

[38] Bureau of Tourism Research, (1990), Tourism *Data Book*, Table 6.1.

[39] Bureau of Tourism Research (1990) Australian Tourism Trends.

[40] Centre for South Australian Economic Studies, (1992), op. cit., p. 75

[41] Business Review Weekly, April 3, 1992, 'City of Diversions, Adelaide Takes its Medicine in Style'

- food preparation techniques;
- hotel management in key areas, such as accountancy, stock control and accommodation management;
- service provision in restaurants.

For example, in respect to food preparation, a significant proportion of food served in hotels and restaurants is now pre-prepared and cooked using microwave ovens.

While improved information management systems have been used in the hotel and restaurant industry and the beginning of the information resolution, technology transfer in this area has yet to be pervasive. An article in Australian Hotelier in February 1991 suggested that although more and more small hotels were installing computers a (then) recent survey undertaken by IBM indicated that only 35 per cent of Australia's hotels and motels had computer systems installed. Moreover, only 6 per cent of these systems had been designed for the hospitality industry. IBM expected this figure to double by 1995.

Service provision within restaurants is also changing as a consequence of the information revolution. Computer systems are now available which replace and enhance the traditional point of sale system. Waiters, using a key pad, takes orders for food and beverages which is then electronically transmitted to the kitchen. The waiter can separate the beverage and food bills as desired, and the pad also acts as a pager for the waiter.[42]

As discussed above, these technological changes have the potential to significantly alter the number of persons employed in the hospitality industry, as well as implying the need for fundamental changes in the types of skills required to work in the hospitality industry. It seems possible that demand for unskilled labour may fall somewhat, but demand for persons with additional technology related skills may increase.

▪ *Possible Changes in Consumer Tastes and Preferences*

In the past decade there have been substantial changes in the type of products demanded by the public from hospitality establishments in South Australia, and significant changes in the supply of hospitality services to meet emerging demand patterns.

For example, there have been significant changes in patterns of alcohol consumption which has led to significant changes in the products marketed by hotels. There have also been changes in demand patterns in the restaurant industry, and changes in the type of accommodation sought by business travellers and tourists.

Changes in the Patterns of Alcohol Consumption

In the past decade there have been significant changes in alcohol consumption patterns in Australia.

As shown in Table 24 below there has been a pronounced long-term decline in average per capita consumption of beer in Australia. Wine consumption, considered on a per capita basis, has also declined significantly in the period since 1985/86.

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[42] Australian Hotels Association, (1991) *Australian Hotelier, February 1991*, p. 108

Table 24: Consumption of Alcohol Per Head of Population, Australia, 1979/80 to 1990/91

Year	Alcohol Type		
	Beer (litres)	Wines (litres)	Spirits (litres/al)
1979/80	132.3	17.2	1.0
1980/81	129.3	18.2	1.1
1981/82	128.6	19.1	1.2
1982/83	121.6	19.7	1.2
1983/84	117.8	20.4	1.1
1984/85	114.5	21.3	1.20
1985/86	115.5	21.6	1.27
1986/87	111.3	21.0	1.18
1987/88	110.8	20.6	1.24
1988/89	113.2	19.1	1.29
1989/90	111.6	18.3	1.28

Source: Australian Hotels Association, (1991) *Australian Hotelier*.

In addition, while overall per capita beer sales have declined, there has been a marked change in the overall composition of beer sales in the past decade. Bulk beer sales (i.e. kegs) have declined markedly, although this fall has been partially offset by increased sales of bottles and cans for home consumption through bottleshops. This change in beer consumption patterns seems likely to reflect concerns by drinkers over stiffer penalties for drink driving. Although similarly, disaggregated data is not available concerning wine sales, it seems reasonable to infer that wine sales through hotel bottleshops have also increased at the expense of wine sales in-house in hotels in recent years.

Population increases in the past decade, have to some degree, offset the fall in per capita consumption of beer and wine. In addition, as the data in Table 22 above indicates, per capita consumption of spirits has increased in the past decade (spirits sales, however, represent only a minor proposition of total sales of alcoholic beverages).

These changes in alcohol consumption patterns, (reflecting concerns such as health considerations, higher penalties for drunk driving, random breath testing) have caused severe pressure on hotels to restructure their operations to maintain profitability. Typical responses have included:

- A number of hotels in South Australia have moved strongly upmarket in an attempt to capture the 18-30 year old market, involving upgrading hotel buildings and furniture, introduction of novelties such as in-house beer brewing, and greater emphasis on food sales, with associated emphasis on better service. Hotels which have opted for this path face constant pressure to improve their operations from the increase in numbers of high class or international hotels in South Australia in the past decade.
- Traditional hotels have tended to seek custom through attractions such as TAB and/or Sky Channel, as well as greater emphasis on food sales, often on a discount basis.

- ***Tourism Attractions and Special Events***

The development of new tourism attractions, and/or the staging of special events such as the Adelaide Festival of Arts or the Australian Formula One Grand Prix, have the potential to markedly increase activity levels in the South Australian hospitality industry.

Studies by Tourism South Australia and Price Waterhouse have, for example, suggested the Grand Prix exerts a powerful influence on the South Australian economy.

Moreover, the impact of the Grand Prix appears to have increased over time. A report by Price Waterhouse assessed the next economic contribution of the Grand Prix to the South Australian economy at $26.6 million, an increase of at least $8.4 million by comparison with the 1985 Grand Prix, reflecting an increase of 46 per cent on current prices and 21 per cent in real terms.[43]

In addition, as pointed out by Tourism South Australia, apart from the short-term direct and indirect benefits generated by visitor expenditure, the Grand Prix provides longer term tourism benefits due to:

- promotional value of media exposure for Australia and Adelaide;
- positive impact on South Australia's image;
- high degree of visitor satisfaction leading to repeat visitation and word of mouth publicity;
- success of the event in the eyes of the world;
- tapping new markets;
- boosting confidence of local residents in what South Australia has to offer visitors.[44]

▪ *Some Conclusions Concerning the Outlook for South Australia's Hospitality Industry in the Next 3-5 Years*

The following factors are likely to have a positive influence on the South Australian hospitality industry in the next 3-5 years:

- anticipated continued strong growth in international and domestic tourism and convention attendance;
- the development of additional tourist attractions and the continuation of major established attractions such as the Australian Formula One Grand Prix and the Adelaide Festival of Arts;
- moves by many South Australian hotels to accommodate changing consumer tastes and preferences by moving upmarket, with improved decor and greater emphasis on quality food.

However, these positive influences will be offset, to some degree, by:

- anticipated poor economic growth, in the short-term, as the economy struggles to recover from the 1990/91 recession;
- limited population growth in South Australia.

It is difficult to predict the effects of potential changes in legislation with any certainty. The introduction of further punitive legislation in regard to alcohol abuse would have an adverse effect on the hotels and clubs industries. Conversely, improvements to tourism building depreciation rates and the introduction of poker machines in hotels seems likely to add to demand for hospitality services.

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[43] Tourism South Australia, (1988) *Report on a Survey of Visitors to the 1988 Foster's Australian Grand Prix*, p. 1

[44] Ibid.

Technological change seems unlikely to result in any significant changes in demand patterns for hospitality products in South Australia in the next 3-5 years. However, technological change, and technology transfer is likely to enhance the efficiency of operations in the hospitality industry.

On balance, providing forecast growth in tourist numbers is maintained, the outlook for the South Australian hospitality appears reasonable in the next 3-5 years.

3.5.4 The Outlook for Hospitality Managers in South Australia in the Next 3-5 Years

- *Introduction*

This section of the report provides an analysis of the outlook for hospitality managers in South Australia in the next 3-5 years.

The duties of hospitality managers i.e. restaurant and catering managers and accommodation and tavern managers are defined in Appendix 2 below.

As was the case in regard to the analyses in Sections 3.3 and 3.4, concerning accounting staff and mechanical engineering associates, this analysis includes:

- discussion of factors influencing *new demand* for restaurant and catering managers;
- factors influencing *replacement demand*;
- a review of the supply of newly qualified restaurant and catering;
- a summary of the outlook for restaurant and catering managers.

- *New Demand for Hospitality Management Staff*

Changes in new demand for hospitality management graduates will occur as a result of changes in activity levels in South Australia's hospitality industry, reflecting changes in community demand for hospitality services.

As discussed in Section 3.5.3, which reviewed the outlook for South Australia's hospitality industry in the next 3-5 years, there are a number of factors which seem likely to increase demand for hospitality services in South Australia over the next 3-5 years. These positive factors include:

- anticipated continued strong growth in international tourism, anticipated sustained growth in interstate tourism and strong growth in the number of persons attending conventions in South Australia;
- the continuation of established special events such as the Australian Formula One Grand Prix and the Biennial Adelaide Festival of the Arts.

However, the extent to which these anticipated positive influences translate into increases in new demand for hospitality management personnel is somewhat uncertain.

The significant growth in the availability of international class accommodation in South Australia in the past decade suggests that it is unlikely that further international class hotels will be developed in South Australia in the next decade. South Australia appears to have adequate established international standard tourist accommodation to meet anticipated demand pressures over the next 3-5 years.

If this is the case, there would appear likely to be, at best, limited growth in *new* demand for hospitality management staff in South Australia in the next 3-5 years. However, increases in capacity utilisation in major international hotels would tend to increase demand for hospitality management staff in most major international hotels which are currently holding staff at minimum levels.

However, it should be noted that changes in new demand for hospitality management staff can be relatively volatile. The industry can rapidly move from low activity levels to being overheated (e.g. nationally the industry moved from relative somnolence in the early 1980s to explosive growth in the late 1980s under the stimulus of Expo and the Bicentenary celebrations). As one writer noted in 1988:

> *Australia's tourism boom is an exciting trend which has created greater employment opportunities as part of a significant contribution to the growth of the economy.*
>
> *But the benefits of this continuing growth have already been offset by a major shortage in the supply of skilled staff for the tourism and hospitality industry and as the rate of growth accelerates, the shortages are becoming even more acute.*[45]

- *Replacement Demand for Hospitality Management Personnel*

Although no data was available at the time of writing, anecdotal evidence suggests replacement demand for hospitality management personnel is likely to be relatively high. While hospitality management personnel are seemingly reasonably well paid by community standards and frequently have fringe benefits such as free accommodation, access to company vehicles etc, the occupation involves extremely long and irregular hours, late night work, and long periods of standing. For these reasons, it seems likely there would be significant turnover of hospitality management staff. In addition, many persons seem likely to move on to less arduous occupations at a relatively early age ("burnout").

As a consequence of these factors, it seems likely there would be significant replacement demand for hospitality management staff in South Australia. However, industry sources have commonly suggested that, as well as academic qualifications from Regency College, prospective management personnel also require significant experience in the hospitality industry if they are to be effective in attaining management positions. In addition, it appears certain international hotels have a policy of recruiting management staff from overseas.

- *Supply of Hospitality Management Personnel*

Table 25 below, shows changes in the number of persons employed in hospitality management occupations in South Australia between August 1987 and August 1991. By August 1991 there were nearly 4000 persons employed as hospitality managers in South Australia.

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[45] Kerekovic, S (1988) 'Staff-demand still outstrips supply' in *Open House* Vol. 15 No. 6 June 1988 p. 17

Table 25: Changes in Employment in Hospitality Management Occupations in South Australia between August 1987 and August 1991

Year	Restaurant and Catering Management Supervisors (No. of Persons)	Accommodation and Tavern Managing Supervisors (No. of Persons)	Total
1987	1703	1472	3175
1988	1730	1727	3457
1989	2199	1519	3718
1990	1394	2525	3919
1991	1732	2220	3952

Source: Australian Bureau of Statistics, The Labour Force, data on microfiche

In 1989 and 1991 a total of 111 persons graduated from Regency College with a Diploma in Hospitality Management, i.e. an average of 55 graduates per year. Annual supply from Regency thus represents only about 1.4% of the labour force of hospitality managers in South Australia, a relatively low rate of supply, especially considering that a number of persons studying in this course come from interstate or overseas and return interstate or overseas once they have completed their course.

However, Regency College is not the only source of hospitality managers. First, the industry is characterised by a high proportion of owner managers, as discussed in Section 2 above. Further, informal upgrading of experienced staff with lesser vocational qualifications is apparently a common source of managerial staff within South Australia's hospitality industry.

As the Department of Employment, Education and Training stated in 'Career Prospects, South Australia, 1990/91:

> *There is no clear systematic career progression in this occupation. Entry to management positions usually takes several years after either initial entry to the industry or completion of appropriate qualifications.*
>
> *Entrants to the executive level of the occupation come from a variety of hospitality related occupations, including food and beverage manager, waiter or chef, as well as section controllers in large hotels. Movement between establishments is often a way of gaining promotion in this occupation, as is the case in other hospitality related occupations. Gradually some career progression is developing as the number of large establishments increases, career structures become more developed and the hospitality industry becomes a more attractive industry to work in.*
>
> *A number of people also enter the occupation through buying a hotel and working in it as the owner, operator or manager. Entry to the occupation by this means is usually into smaller establishments.*[46]

It should also be noted that many aspiring hospital managers complete an Advanced Certificate in Hospitality (Hotel and Catering Operations) rather than undertaking the more complex Diploma in Hospitality Management.

It is also open to debate as to whether the Diploma in Hospitality Management is relevant to *all* sectors of the hospitality industry (e.g. small hotels and restaurants) or is largely targeted to the top end of the market, i.e. international class establishments, higher class domestic hotels. If the latter is the case, then it needs to be appreciated that the overall number of persons in hospitality management in South Australia is far greater than the number in hospitality management positions in upper class establishments, i.e. the training rate is much higher than calculated above.

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[46] Department of Employment, Education and Training (1990) *Career Prospects, South Australia 1990/91*

Thus, although supply of hospitality management personnel to the South Australian hospitality industry via the SADETAFE Diploma in Hospitality Management is limited, a variety of sources of supply exist, which are accepted by the State's hospitality industry. It therefore does not appear likely that current training rates are constraining the hospitality industry.

- *Some Conclusions Concerning the Outlook for Hospitality Management Personnel*

As discussed above, it seems unlikely that *new* demand for hospitality management personnel will increase markedly in South Australia the next 3-5 years, reflecting the effects of the 1990/91 recession on the industry as well as major increases in capacity at the top end of the market over the 1980s (although increases in capacity utilisation as the economy recovers from the 1990-92 recession in major hotels could also tend to create new demand for hospitality management personnel as these hotels are apparently currently being staffed at minimum levels).

Replacement demand, however, is likely to continue to be significant, as hospitality managers frequently tend to work long and irregular hours, with constant late night work, which, according to industry sources, tends to lead to significant labour turnover from 'burnout'.

Supply of hospitality management personnel from Regency College of TAFE is very low, particularly as many graduates from Regency tend to move interstate or go overseas after completing their courses. However, anecdotal evidence suggests that major hotels frequently recruit management staff from overseas. Anecdotal evidence also suggests that, at the lower end of the market (i.e. small hotels and restaurants), on-the-job experience, rather than completion of hospitality management qualifications, is seen as the normal means of entry to hospitality management positions in South Australia's hospitality industry.

The major question which arises is not so much the numerical adequacy of supply from Regency College to meet employers demands so much as the willingness of South Australia's hospitality sector to avail itself of local, highly trained hospitality management personnel. As previously discussed, anecdotal evidence suggests some major international hotels tend to recruit hospitality management staff from interstate or overseas rather than locally.

In addition, outside the major hotels, the hospitality industry is characterised by a large proportion of small businesses (e.g. nationally the Bureau of Tourism Research estimated 87 per cent of establishments in the hospitality industry employed less than 20 persons in 1987).[47] These small businesses are frequently managed by their owners, who learnt their skills 'on-the-job' and who may have limited knowledge of the training received by persons completing the Diploma in Hospitality Management and hence may not seek hospitality management graduates as employees. (This issue is discussed further in Section 4 below which analyses the results of surveys of the accounting, manufacturing and hospitality industries in South Australia).

3.6 Summary and Conclusions

Section 2 discussed the broad occupational outcomes arising from middle level training in TAFE, as well as discussing the more specific occupational outcomes arising from undertaking the three target SADETAFE Associate Diploma/Diploma courses. Section 2 concluded that while TAFE middle level vocational training seems likely to lead to paraprofessional employment, in reality broad occupational outcomes arising from undertaking middle level vocational training in TAFE are ill defined in existing ABS official occupational nomenclature (ASCO). In respect to those occupations for which vocational training is provided by the three target SADETAFE courses:

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[47] Bureau of Tourism Research (1988), *Hospitality Industry Labour Force Survey*, p. 16

- As discussed in Section 2, occupational outlets arising from undertaking the SADETAFE Associate Diploma in Accounting are ill defined in ASCO, while award restructuring appears likely to have little if any impact on the employment base available to accountants in general practice in South Australia. Award restructuring is yet to effect the employment base has available to accounting clerks in South Australia, as award restructuring has been relatively slow in respect to the South Australian State Clerks Awards under which most accounting clerks are employed.

- Likely occupational outlets arising from undertaking the Associate Diploma in Mechanical Engineering are well defined in ASCO. The process of award restructuring, with its emphasis on skills, competencies and training, has also tended to consolidate the employment base available to Mechanical Engineering Associates.

- Likely occupational outlets arising from undertaking the SADETAFE Diploma in Hospitality Management are also well defined in ASCO. Award restructuring also has the potential, once award restructuring is extended to hospitality management awards (based on award restructuring in hospitality industry awards which has taken place to date), to further define the nature of vocational training required to work in hospitality management occupations.

Section 2 also concluded that, despite the fact that broad occupational outcomes from undertaking middle level TAFE training are ill defined in ASCO, overall enrolments in middle level training in TAFE have increased rapidly in recent years in South Australia and nationally, as have enrolments in two of the three target SADETAFE courses.

Section 2 then questioned whether students apparent willingness to undertake TAFE middle level vocational training is equalled by employers' enthusiasm for their vocational skills.

Section 3 has attempted to answer this question by reviewing recent and prospective trends in the employment base available to persons undertaking middle level training through TAFE, both at broad levels and in respect to the three target SADETAFE courses. In respect to analysing future trends in paraprofessional employment it has been necessary to base discussion on national and state econometric models which provide forecasts of likely changes in employment, given the diversity of occupations and industries under discussion. With this exception, the discussion in Section 3 has been based on analysing long term trends in the industries where persons with middle level training are generally employed.

The need to analyse underlying trends in the industries where SADETAFE Associate Diploma/Diploma holders are generally employed reflects the fact that occupational demand is a derived demand, where demand for a particular occupation involving particular skills (e.g. mechanical engineering associates) is derived from demand for the goods and services produced by those industries in which persons with these skills are largely employed (i.e. manufacturing industry in the case of mechanical engineering associates). Hence, to develop projections of likely changes in employment in particular occupations it is first necessary to understand likely trends in those industries where persons in these occupations are largely employed.

In this report projections of likely future changes in employment in the occupations under discussion have been constrained to a 3-5 year time horizon. This decision reflects the view that, in a period of rapid structural economic change, where the nature of industries are changing very rapidly, and at a time when award restructuring is also rapidly changing the very nature of many occupations, longer term projections would seem likely to be of limited use in a policy planning context.

What has the analysis in Section 3 demonstrated?

First and foremost, *it has demonstrated that a substantial employment base exists for paraprofessionals both in South Australian and nationally* (the main occupational outlet available to persons undertaking TAFE middle level training in the Australian Standard Classification of occupations).

Paraprofessional employment has also increased relatively rapidly in South Australia and nationally in recent years.

However, as discussed in Section 2, it is possible to enter a variety of paraprofessional occupations without undertaking middle level training through TAFE (i.e. as well as becoming a paraprofessional by undertaking TAFE middle level vocational training, it is possible to become a paraprofessional by undertaking lower level vocational training or by undertaking training at university). At the national level, employment has not risen rapidly in those paraprofessional occupations where TAFE provides middle level training in recent years. Econometric projections in a DEET publication 'Australia's Workforce in the Year 2001' suggest that this situation will continue in the next 3-5 years.

In contrast to the national experience, in South Australia employment has risen rapidly in recent years in those paraprofessional occupations where SADETAFE provides middle level training. However, econometric projections suggest it is likely that this situation will be reversed, and growth in employment in paraprofessional occupations in South Australia will mirror national trends (i.e. growth in employment in those paraprofessional occupations where SADETAFE provides middle level will be slower than in those paraprofessional occupations where SADETAFE does not provide middle level vocational training).

In respect to the three target SADETAFE courses:

- Section 3.3 suggests the extent of the employment base available to persons undertaking the SADETAFE Associate Diploma in Accounting is uncertain because the occupational outcome(s) arising from this course are relatively uncertain. However, there has been relatively strong growth in the finance, property and business services industry division in South Australia in recent years (the main industry where persons undertaking the SADETAFE Associate Diploma in Accounting seem likely to be employed) and this industry seems likely to continue to grow in the next 3-5 years, although not at the same heady rate as in the late 1980s, when the Commonwealth Government largely deregulated Australia's financial markets. Demand for accounting services, in particular, seems likely to continue to increase in South Australia in the next 3-5 years, largely in response to ongoing, pending and anticipated changes in Commonwealth and State legislation. However, it should be noted that the rate of supply of persons completing the SADETAFE Associate Diploma in Accounting is relatively high and, given the recent explosion in enrolments in this course (see Section 2.8), the supply of graduates from the SADETAFE Associate Diploma in Accounting seems likely to increase markedly in the next 3-5 years, (at a time when the number of university accounting graduates is also apparently likely to continue to increase). Hence, the South Australian labour market for accounting services may become somewhat oversupplied with qualified persons in the next 3-5 years.

- As discussed in Section 3.4 there appear to be an ongoing, reasonably well defined employment base (both in ASCO and in relevant industrial awards) available to persons undertaking the SADETAFE Associate Diploma in Mechanical Engineering. However, the number of persons employed as mechanical engineering associates in South Australia has declined markedly in recent years, according to ABS data. Further, the main industry in which mechanical engineering associates appear likely to be employed, the manufacturing sector, has grown relatively slowly in recent years in South Australia. Given the South Australia's heavy reliance on the transport equipment industry, which will face significant pressure to restructure in the next 3-5 years (largely as a result of scheduled reductions on tariffs on imported goods), the future prospects for new demand in respect to this occupation are also somewhat uncertain in a South Australian context. While replacement demand has apparently been relatively high in the occupation of mechanical engineering associates in the past, the current depressed economic outlook in South Australia seems likely to reduce movement out of this occupation in the next 3-5 years. It should also be noted that supply of mechanical engineering associates (both from SADETAFE and the University of South Australia) is relatively high.

- As discussed in Section 3.5 above, the major likely occupational outlets for persons undertaking the Diploma in Hospitality Management appear to be in hospitality management positions, which are reasonably well defined both in ASCO and relevant industrial awards. The South Australian hospitality industry has grown significantly in recent years, and projections of growth of domestic and international made by the Commonwealth Bureau of Tourism Research (although developed prior to the recent recession) suggest the hospitality industry is likely to continue to expand in South Australia in the next 3-5 years, despite adverse short term economic pressures. This would enhance new demand for hospitality management personnel. Replacement demand for hospitality management staff is also apparently relatively high in South Australia.

  The rate of supply of hospitality management staff from SADETAFE is minimal. However, significant alternative sources of supply of hospitality staff exist in South Australia. It is also a major question as to whether the local hospitality industry values formal vocational training in hospitality management at a diploma level, given the fragmented nature of the hospitality industry, which is characterised by large numbers of small business (which are frequently managed by their owners). In addition, it appears that many international hotels prefer to recruit their hospitality management staff from overseas.

In summary, the analysis in Section 3 still leaves many questions unanswered in respect to the broader questions as to whether an autonomous, independent, specifically identifiable employment base exists for persons undertaking middle level training through TAFE, especially in respect to the target SADETAFE courses. These questions include:

- given the lack of separate, well defined occupational outlets in ASCO or industrial awards for persons undertaking the SADETAFE Associate Diploma in Accounting (despite which enrolments in this course have risen markedly in recent years) are people with this award well accepted by South Australian hospitality firms?

- following a period (the 1980s) when the South Australian manufacturing sector has been under constant pressure to restructure its operations to become more internationally competitive, (pressure which may well intensify in the next 3-5 years as a result of scheduled tariff reductions) and the number of persons employed as mechanical engineering associates has declined in South Australia, will graduates from the Associate Diploma in Mechanical Engineering continue to be able to find employment in South Australia in satisfactory numbers (or, just as importantly, will they be able to get jobs in fields relevant to their TAFE vocational qualifications)?

- whether South Australia's hospitality industry accepts the potential benefit to it of having a well trained hospitality management workforce by readily accepting and employing graduates from the SADETAFE Diploma of Hospitality Management?

These questions, and other related questions, are discussed in Section 4, which presents the outcomes of three surveys of the main *industries* in which graduates from the three target SADETAFE courses are largely employed, as well as in Section 5, where three surveys of the labour market experiences of *graduates* from these courses are discussed in detail.

Section 4: Analysis of Industry Survey Results

4.1 Introduction

The preceding sections of this report have considered the question "Occupational Outlets for Middle Level Training - What is the Future of Middle Level Training?" from a variety of perspectives by referring to *secondary* evidence (e.g published reports which are relevant to this project) and publicly available data, e.g data available from the Australian Bureau of Statistics.

As discussed in these preceding sections the secondary evidence which is available for analysis tends to beg a variety of questions of major interest in the context of this project.

For this reason, the project has also involved generating *primary* evidence from South Australian industry and from graduates from the target SADETAFE courses. Primary evidence has been gathered by:

- conducting three industry surveys to test South Australian industry's acceptance of middle level training via the target Associate Diploma/Diploma courses. Surveys to South Australian businesses in the accounting, manufacturing and hospitality industries have formed a major element in the project;

- conducting three destination surveys of SADETAFE graduates from the Associate Diploma in Accounting, the Associate Diploma in Mechanical Engineering and the Diploma in Hospitality Management; and

- carrying out detailed case studies of the post graduation labour market experiences of selected graduates from the three target SADETAFE courses.

This section, Section 4, discusses the results of the three industry surveys referred to above (copies of the three industry questionnaires are included in Appendix 4 below). The purpose of the three industry surveys is discussed below. Subsequently, detailed information is presented on the individual surveys, with discussion ranging from the selection of survey populations for each survey, to the outcomes of results of survey questionnaires.

The following section, Section 5, discusses the three graduate surveys referred to above. This is followed by the graduate case studies in Section 6 below.

■ *Purpose of the Industry Surveys*

The three industry surveys which form part of this project were intended to provide information on the *attitudes* of South Australian employers towards the three target SADETAFE middle level courses. Pertinent questions include:

- Are South Australian employers willing to employ SADETAFE graduates from the three target courses?

- Do South Australian employers value their employees SADETAFE vocational training?

- How do employers regard SADETAFE training vis-a-vis university training?

- Do South Australian employers actively seek persons with TAFE middle level training when recruiting?

- Are South Australian employers willing to use SADETAFE as a training provider in the future in respect to the three target courses?

- ***Response Rates to the Industry Surveys***

The response rates to the three industry surveys are shown in Table 26 below.

As shown in Table 26, response rates (adjusted) varied from 26.4 per cent for the hospitality industry survey to 43.3 per cent for the accounting industry survey. The response rates to the mechanical engineering and accounting surveys thus meets the general social science benchmark (of a 30 per cent survey response rate) and may be considered as being reasonably representative of the views of the survey population.

Table 26: Response Rates to the Industry Surveys

	Mechanical Engineering	Hospitality Management	Accounting
Population	381	417	404
Returns	139	107	171
Returns to Sender	34	12	9
Raw Response Rate	36.5%	25.7%	42.3%
Adjusted Response Rate	40.1%	26.4%	43.3%

Source: Survey data

The response rate to the hospitality industry survey appears relatively low. However, South Australian hospitality industry sources suggest that surveys of this industry frequently result in response rates as low as 5-10 per cent. Against this background, the response rate achieved in this survey is a credible result.

4.2 Analysis of the Results of Accounting Industry Survey

4.2.1 Introduction

This section of the report discusses the outcome of the survey of accounting activities which forms part of this project. Section 4.2.2 discusses selection of the survey population. This is followed by an analysis of the survey results in Section 4.2.3. In Section 4.2.4 some conclusions are presented concerning the outcome of the accounting industry survey.

4.2.2 Selection of Survey Population

The selection of the population of this survey represented something of a problem. As discussed in Section 2.3 employment of accounting personnel is concentrated in the finance, property and business services industry division (and especially in the accounting services subdivision). Accounting personnel are widely employed throughout all areas of the South Australian economy but particularly concentrated in the financial services. Hence, while it was important to canvass the views of South Australia's finance, property and business services industry division in regard to this industry's acceptance of the SADETAFE Associate Diploma in Accounting, it was also important to canvass the opinions of South Australian employers outside the finance, property and business services industry division.

The survey population therefore was drawn from the South Australian finance, property and business services industry and organisations from the broader State economy in broadly equal quantities.

The survey population from the finance property and business services industry (including the accounting industry) was drawn from Yellow Pages listings.

The segment of the survey population arising from the broader State economy represented, however, somewhat of a problem. Given the modest size of this survey (400 survey questionnaires) it seemed impractical to simply "fire a shotgun" against lists of the approximately 50000 business enterprises operating in South Australia (according to Yellow Pages listings) in the pious hope that some shotgun pellets would lodge in the hides of the relatively few organisations in South Australia which employ SADETAFE Associate Diploma in Accounting graduates.

It was therefore decided to select a survey population which included both probable employers (by reference to Yellow Pages listings) across a broad spectrum of the State economy and known employers of SADETAFE accounting graduates. The advice of the National Institute of Accountants was sought concerning firms known to employ Associate Diploma holders outside the finance, property and business services division. Finally, selected substantial firms from various areas of the State economy were selected.

In this way, it was hoped to attract the views of a wide variety of potential and known employers of SADETAFE Associate Diploma holders, from not only the financial services industry but also the wider State economy, ranging from small businesses to major firms, with representation from both the public and private sectors.

Ultimately 404 survey questionnaires concerning the SADETAFE Associate Diploma in Accounting were forwarded (the project profile called for 400 survey questionnaires). As discussed above, 171 organisations responded, an adjusted response rate of 43.4 per cent.

4.2.3 Analysis of Accounting Industry Survey Results

- ***Introduction***

This sub-section discusses the results of the accounting industry survey questionnaire. The responses to all the questions in the survey are discussed. It should be noted that not all respondents replied to every question in the survey questionnaire. The following analysis reviews actual responses to each survey question.

- ***Survey Respondents Considered by Industry***

In Table 27 below, responses to a survey question which requested that participating organisations nominate their main areas of activity are presented (Question 1).

Table 27: Main Area of Activity of Organisations Responding to the Accounting Industry Survey

Industry	Number of Responses	Proportion of Total Responses(%)
Agriculture	2	1.1
Mining	1	0.6
Manufacturing	17	9.5
Electricity, Gas and Water	2	1.1
Construction	6	3.4
Wholesale & Retail Trade	15	8.4
Transport & Storage	2	1.1
Communication	2	1.1
Finance, Property & Business Services	98	54.8
Public Administration & Defence	2	1.1
Community Services	14	7.8
Recreational, Personal & other services	10	5.6
TOTAL	171	100.0

Source: Survey data

As the data in Table 27 above indicates, the majority of survey respondents came from the finance, property and business services industry division (perhaps accountants are good at filling in forms!). However, there were a reasonable number of responses from certain other industries, notably the manufacturing, wholesale and retail trade, community services and recreation and personal services industry divisions.

- ***Number of Persons Employed by Survey Respondents***

Respondents to the accounting industry survey indicated they employed a total of 49917 persons. Unfortunately, not all survey respondents provided data on male and female employment. Those survey respondents who did provide disaggregated data indicated they employed 31722 males and 16543 females. The overwhelming majority of males employed by survey respondents were employed on a full time basis (93.1 per cent). However, while most females employed by survey respondents were also employed on a full time basis, the incidence of part-time work and casual work among females was significantly higher than for males. Some 23.2 per cent of females employed by survey respondents worked on a part-time basis. A further 11.2 per cent of females employed by survey respondents were employed on a casual basis.

- ***Areas in Which Survey Respondents Employed Accounting Personnel***

Table 28 below presents data concerning the areas in which survey respondents largely employed accounting personnel at the time the accounting industry survey was carried out.

The data from the accounting industry survey suggests that most survey respondents employed accounting personnel in general accounting, financial accounting, management accounting and taxation.

Table 28: Accounting Industry Survey Respondents: Main Areas of Employment of Accounting Personnel.

Field of Employment	Number of Responses
General Accounting	158
Financial Accounting	96
Management Accounting	91
Taxation	83
Auditing	60
Training	21
Insolvency	20

Source: Survey data

- ***Recognition of the SADETAFE Associate Diploma in Accounting in Industrial Awards***

Only a minority of survey respondents indicated that the Associate Diploma in Accounting was recognised in occupational definitions in the industrial award(s) their organisation operates under.

As shown in Table 29 below, 165 organisations responded to a question in the survey questionnaire concerning this issue (Question 14). However, only 41 organisations, or 24.5 per cent of respondents claimed the Associate Diploma was recognised in the industrial award their organisation operates under.

Table 29: Recognition of the Associate Diploma in Accounting in Industrial Awards

Possible Response to Question	Number of Responses	Proportion of Total Responses (%)
Yes	41	24.5
No	51	30.9
Not applicable	73	44.2
TOTAL	165	100.0

Source: Survey data.

Of the respondents, 44.2% indicated that the survey question was not applicable to their circumstances (i.e. they did not operate under an industrial award). In addition, 32.9 per cent of respondents to the accounting industry survey indicated the Associate Diploma in Accounting was not recognised in the industrial award their organisation operates under.

- ***Proportion of Survey Respondents Employing Persons Who Had Completed the SADETAFE Associate Diploma in Accounting***

Of the 171 organisations which responded to the survey of accounting activities, 148 organisations responded to a survey question (Question 4) concerning employment of persons who had completed the SADETAFE Associate Diploma in Accounting. A total of 85 organisations, or 57.4 per cent of respondents to this question, indicated they employed persons who had completed the SADETAFE Associate Diploma in Accounting.

In addition, 49 organisations, representing 36.8 per cent of organisations which responded to this question, employed persons who had completed a SADETAFE Advanced Certificate in Accounting. A large proportion of survey respondents also employed persons who had completed university accounting qualifications (61.1 per cent of organisations which responded to this question employed persons with university accounting qualifications).

- ***Proportion of Survey Respondents' Employing Persons Currently Studying the SADETAFE Associate Diploma in Accounting.***

A large proportion of the organisations which responded to this question employed persons who were currently undertaking the SADETAFE Associate Diploma in Accounting. Some 53.5 per cent of respondents to a survey question concerning employment of persons currently studying the SADETAFE Associate Diploma in Accounting indicated they employed persons who were currently undertaking TAFE accountancy studies.

In addition, a minority of respondents employed persons who were currently undertaking the SADETAFE Advanced Certificate in Accounting. A total of 115 organisations responded to a survey question which focussed on current studies in the SADETAFE Advanced Certificate in Accounting, of which 11 organisations or 9.6 per cent employed persons who were currently undertaking this course.

However, a larger proportion of respondents employed persons undertaking university accounting studies. A total of 139 organisations responded to a survey question concerning their employment of persons currently undertaking university studies, of which 52 organisations or 37.4 per cent of respondents to this question indicated they currently employed persons undertaking university accounting studies.

The large proportion of survey respondents which employ persons who have either completed or are undertaking vocational training in Accounting through SADETAFE suggests survey respondents have considerable exposure to this course. This suggests survey respondents are likely to be in a good position to assess the merits of SADETAFE middle level accounting training (although survey respondents were also asked more directed questions on the extent of their knowledge of the SADETAFE Associate Diploma in Accounting, by a question later in the surveys which is discussed below).

- ***Survey Respondents' Knowledge of SADETAFE Accounting Courses***

Survey respondents were asked a series of questions (via survey Question 7) concerning their knowledge of the following SADETAFE accounting courses: the Associate Diploma in Accounting; the Certificate in Basic Accounting and the Business Practice Certificate. Responses to these questions are shown in Tables 30, 31 and 32 below.

Table 30: Accounting Industry Survey Respondents' Knowledge of the SADETAFE Associate Diploma in Accounting

Possible Responses to Survey Question	Number of Responses	Proportion of Total Responses (%)
Well informed	70	40.0
Partly informed	56	32.0
Not informed	49	28.0
TOTAL	175	100.0

Source: Survey data.

The data in Table 30 above indicates survey respondents were generally "well informed", or "partly informed" about the SADETAFE Associate Diploma in Accounting, with 40.0 per cent of respondents to this question saying they were "well informed" about the SADETAFE Associate Diploma and a further 32.0 per cent of respondents indicating they were "partly informed" about this SADETAFE accounting course.

However the majority of survey respondents were *not* well informed about the SADETAFE Certificate in Basic Accounting, as the data in Table 31 below indicates.

Table 31: Accounting Industry Survey Respondents' Knowledge of the SADETAFE Certificate in Basic Accounting

Possible Responses to Survey Question	Number of Responses	Proportion of Total Responses (%)
Well informed	28	17.0
Partly informed	44	26.8
Not informed	92	56.1
TOTAL	164	100.0

Source: Survey data.

More than half of the organisations which responded to this survey question were "not informed" concerning the course and only 17.0 per cent of respondents to this survey question were "well informed" about this course, with a further 26.8 per cent of respondents being "partly informed" about this course.

The majority of survey respondents were also *not* well informed about the SADETAFE Business Practice Certificate. As the data in Table 32 below indicates only 9.1 per cent of survey respondents were "well informed" about this SADETAFE course and 62.2 per cent of respondents to this survey question were "not informed" about this course.

Table 32: Accounting Industry Survey Respondents' Knowledge of the SADETAFE Accounting Basic Practice Certificate

Possible Responses to Survey Question	Number of Responses	Proportion of Total Responses (%)
Well informed	15	9.1
Partly informed	47	28.6
Not informed	102	62.2
TOTAL	164	100.0

Source: Survey data.

Hence, in summary, while survey respondents generally were reasonably well informed about the SADETAFE Associate Diploma in Accounting, they generally had more limited knowledge of lower level SADETAFE accounting courses.

- *SADETAFE Training Services Previously Used by Survey Respondents*

Responses to survey Question 6 suggest that a significant proportion of survey respondents had used SADETAFE services in respect to providing vocational training in accounting in the past. The overwhelming majority of survey respondents had used existing SADETAFE courses, rather than training in the workplace, a TAFE consultancy, or a tailored training program. As shown in Table 33 below, 51.5 per cent of respondents had used TAFE training through TAFE colleges, 3.6 per cent of respondents had used TAFE training in the workplace, 2.1 per cent had used TAFE consultancy services and 3.5 per cent had used tailored training by TAFE.

Table 33: Previous Use of TAFE Training Services by Accounting Industry Survey Respondents

Type of Service	Number of Responses	Proportion of Total Responses (%)
TAFE training through existing courses	84	51.5
Workplace training provided by TAFE staff	5	3.6
TAFE Consultancy	3	2.1
Tailored Training by TAFE	5	3.5

Source: Survey data.

Note: This table synthesises the results of four questions. Proportions relate to responses to particular questions.

- *Survey Respondents' Views on Middle Level SADETAFE Training in Accounting*

Survey respondents were asked two questions concerning the existing SADETAFE Associate Diploma in Accounting. The first question sought survey respondents' opinions about the subject coverage in existing courses in the SADETAFE Associate Diploma in Accounting (Question 8 in the survey questionnaire). The second question sought survey respondents' views on the *range* of subjects provided in the SADETAFE Associate Diploma in Accounting (Question 9).

As the data in Table 34 below indicates, the majority of respondents felt the SADETAFE Associate Diploma in Accounting provided appropriately detailed knowledge of required subject areas. Only 7.4 per cent of those organisations which responded to this question suggested the extent of material provided in particular subject areas was, in their view, of poor quality.

Table 34: Survey Respondents' Views on Subject Knowledge Included in the SADETAFE Associate Diploma in Accounting

Possible Responses	Number of Responses	Proportion of Total Responses (%)
Excellent subject knowledge	15	10.1
Good subject knowledge	71	47.7
Reasonable subject knowledge	52	34.9
Poor subject knowledge	11	7.4
TOTAL	149	100.0

Source: Survey data.

Moreover, very few survey respondents suggested that additional vocational training be included in the SADETAFE Associate Diploma in Accounting by increasing the number and range of subjects in the course. Of the 153 organisations which responded to a survey question (Question 9) which canvassed this issue (i.e. the second of the two questions referred to above) 115 organisations or 75.2 per cent of respondents expressed satisfaction with the present range of subjects covered by the SADETAFE Associate Diploma in Accounting.

- ***Survey Respondents Views on Specific Short Courses in Accounting Versus the Existing SADETAFE Associate Diploma in Accounting***

The seemingly generally positive view of SADETAFE training in accounting via the Associate Diploma in Accounting held by survey respondents was also reflected in survey respondents' comments on maintenance of the existing broad-based course as opposed to SADETAFE offering specific short courses addressing particular subjects. Of the 160 organisations which responded to the survey question addressing this issue (Question 10), 90 organisations (or 61.2 per cent of accounting survey respondents) preferred the present SADETAFE course rather than shorter, more specific courses of interest to particular organisations.

- ***Industry Acceptance of SADETAFE Training in Accounting by Comparison with University Accounting Training***

Responses to the accounting industry survey suggest that the SADETAFE Associate Diploma in Accounting is relatively well accepted by survey respondents. As shown in Table 35 below, the SADETAFE Associate Diploma in Accounting was "well accepted" by 30.0 per cent of the survey respondents which answered a question on this issue (Question 11), and "partly accepted" by 53.5 per cent of survey respondents. However, 28 organisations or 16.5 per cent of respondents suggested the SADETAFE Associate Diploma in Accounting was "not accepted".

Table 35: Industry Acceptance of The SADETAFE Associate Diploma in Accounting by Comparison with University Degree Courses

Possible Responses	Number of Responses	Proportion of Total Responses (%)
Well accepted	51	30.0
Partly accepted	91	53.5
Not accepted	28	16.5
TOTAL	170	100.0

Source: Survey data.

- ***Using SADETAFE to Train Accounting Staff in the Future***

The majority of survey respondents indicated they would use SADETAFE to train their accounting staff in the future (although it should be noted that this survey question (Question 13) did not involve any comparisons with university accounting training - i.e. survey respondents were *not* asked to indicate a preference between SADETAFE accounting training and university accounting training). As shown in Table 36 below, 102 of the 166 organisations or 61.4 per cent of survey respondents which responded to this question indicated they would use SADETAFE for accounting training in the future.

Table 36: Survey Respondents' Willingness to Use SADETAFE to Train Accounting Staff in the Future

Possible Response	Number of Responses	Proportion of Total Responses (%)
Yes	102	61.4
No	64	38.6
TOTAL	166	100.0

Source: Survey data.

- *Educational Qualifications and Experience Sought by Survey Respondents When Recruiting Accounting Personnel*

Despite the relatively positive perceptions of the SADETAFE Associate Diploma in Accounting apparently generally held by survey respondents (see above), only a small proportion of the organisations which responded to the accounting industry survey seek SADETAFE Associate Diploma holders when recruiting new staff or promoting staff within their organisation. Responses to survey Question 12 suggest that the majority of organisations which responded to this question do not actively seek persons holding an Associate Diploma in Accounting. A total of 105 organisations or 64.4 per cent of respondents to this question indicated they *do not* actively seek persons holding the SADETAFE Associate Diploma in Accounting.

Moreover, the overwhelming majority of survey respondents to the accounting industry survey indicated that they regarded on-the-job experience as being of more importance than educational qualifications when seeking new staff or promoting persons within their organisation. In total, 131 out of the 158 organisations (or 82.9 per cent of respondents) which responded to a survey question on this issue (Question 15) indicated they seek persons with on the job accounting experience rather than academic qualifications in accounting when recruiting new staff or promoting staff within their organisation.

4.2.4 Some Conclusions Concerning the Accounting Industry Survey

This section of the report has reviewed the results of the accounting industry survey. The survey results indicate that:

- while most survey respondents came from the finance property and business services industry division there were a reasonable number of responses from other industries, especially the manufacturing, wholesale and retail trade and recreation and personal services industry divisions;
- a significant proportion of respondents employed persons who had completed or were undertaking the SADETAFE Associate Diploma in Accounting;
- survey respondents had commonly used SADETAFE vocational training in the past, largely via scheduled courses;
- the majority of survey respondents were "well informed" or "partly informed" about the SADETAFE Associate Diploma in Accounting, although they generally had a more limited knowledge of other SADETAFE accounting courses;
- most survey respondents expressed satisfaction at the content of subjects in the SADETAFE Associate Diploma in Accounting and did not suggest the addition of extra subjects in the course;

- survey respondents generally preferred the existing, accredited and broad-based SADETAFE course to the alternative of short, industry-specific non-award courses;
- survey respondents satisfaction with SADETAFE vocational training, by comparison with university training in accounting, was relatively high;
- most survey respondents were willing to use SADETAFE vocational training in the future;
- however, despite their generally favourable views of SADETAFE vocational training in accounting via the Associate Diploma in Accounting, most survey respondents do not seek TAFE graduates when recruiting accounting personnel, and most survey respondents favoured hiring experienced accounting staff rather than seeking out qualified staff.

4.3 Analysis of the Results of Mechanical Engineering Industry Survey.

4.3.1 Introduction

This section of the report discusses the outcome of the survey of accounting activities which forms part of this project. Section 4.3.2 discusses selection of the survey population. This is followed by an analysis of the survey results in Section 4.3.3. In Section 4.3.4 some conclusions are presented concerning the outcome of the mechanical engineering industry survey.

4.3.2 Selection of Survey Population

The manufacturing sector is the main industry where mechanical engineering associates are employed in South Australia. Therefore the survey population was drawn from South Australian manufacturing firms from Yellow Pages listings.

To some degree, employment of mechanical engineering associates is concentrated in certain manufacturing industries, notably the transport equipment, basic metal products and fabricated metal products industries. Therefore, while the survey population of 381 organisations included representatives of all industry divisions in the State's manufacturing sector, firms from these main employing industries represented an important focus in selecting the survey population. In addition, certain known major public sector employers of technical support staff such as Australian National, the E&WS and SAGASCO were included in the survey population.

4.3.3 Analysis of Mechanical Engineering Survey Results

- ***Introduction***

This sub-section discusses the results of the mechanical engineering industry survey questionnaire. As outlined in the introduction to the analysis of the accounting industry survey, the responses to all the questions in each survey are discussed (although again it should be noted that not all respondents replied to every question in the survey questionnaire). The following analysis hence focuses on actual responses to each survey question.

- ***Survey Respondents Considered by Industry***

In Table 37 below, responses to a survey question which requested that participating organisations nominate their main area of activity are presented (Question 1).

Table 37: Main Area of Activity of Organisations Responding to the Mechanical Engineering Industry Survey

Industry	Number of Responses	Proportion of Total Responses (%)
Agriculture	3	2.1
Mining	2	1.4
Manufacturing	109	77.8
Electricity, Gas & Water	2	1.4
Construction	9	6.4
Wholesale and Retail Trade	9	6.4
Transport & Storage	1	0.7
Communication	-	-
Finance, Property & Business Services	-	-
Public Administration & Defence	1	0.7
Community Services	-	-
Recreational, Personal and other Services	2	1.4
TOTAL	138	100.0

Source: Survey data.

As indicated in Section 4.3.2 (Selection of Survey Population), the main focus of the survey was in respect to the South Australian manufacturing sector, where most mechanical engineering associates are employed in South Australia. Accordingly, the majority of survey respondents came from the South Australian manufacturing sector.

- ***Number of Persons Employed by Survey Respondents***

The organisations which responded to the mechanical engineering survey employed a total of 36629 persons. Unfortunately, some survey respondents did not disaggregate their employment by gender. Those firms which did provide employment data disaggregated by gender indicated they employed 25258 males and 4906 females.

Survey respondents are therefore significant employers in a South Australian context.

- ***Recognition of the SADETAFE Associate Diploma in Mechanical Engineering in Industrial Awards***

A total of 118 organisations responded to a survey question which sought information concerning recognition of the Associate Diploma in Mechanical Engineering in industrial awards to which survey respondents were a party (Question 13).

Table 38: Recognition of the Associate Diploma in Mechanical Engineering in Industrial Awards

Possible Response to Question	Number of Responses	Proportion of Total Responses (%)
Yes	50	42.4
No	20	16.9
Not applicable	48	40.7
TOTAL	118	100.0

Source: Survey data.

Results of this question are shown in the Table immediately above (Table 38). A total of 50 organisations, or 42.4 per cent of survey respondents, indicated that the Associate Diploma in Mechanical Engineering was recognised in industrial awards to which they were a party. The remaining respondents either indicated the question was not relevant to their circumstances (40.7 per cent of survey respondents) or that the Associate Diploma was not recognised in Industrial Awards to which they were a party (16.9 per cent of survey respondents).

- *Proportion of Survey Respondents Employing Persons Who Had Completed the SADETAFE Associate Diploma in Mechanical Engineering*

Of the 139 organisations which responded to the survey of mechanical engineering activities, 129 organisations responded to a survey question concerning employment of persons who had completed the SADETAFE Associate Diploma in Mechanical Engineering (Question 3). A total of 44 organisations, or 34.1 per cent of respondents to this question, indicated they employed persons who had completed the SADETAFE Associate Diploma in Mechanical Engineering.

A number of organisations also employed persons who had completed the Advanced Certificate in Mechanical Engineering through SADETAFE. Some 15 organisations, or 13.3 per cent of respondents to a survey question addressing this issue, employed persons who had completed the Advanced Certificate in Mechanical Engineering.

A large proportion of survey respondents also employed persons who had completed university mechanical engineering qualifications (41.2 per cent of organisations which responded to this question employed persons with university engineering qualifications).

- *Proportion of Survey Respondents Employing Persons Currently Studying the SADETAFE Associate Diploma in Mechanical Engineering*

A significant proportion of the organisations which responded to a survey question on this issue employed persons who were currently undertaking the SADETAFE Associate Diploma in Mechanical Engineering. Some 30.6 per cent of respondents to a survey question (Question 4) concerning employment of persons currently studying the SADETAFE Associate Diploma in Mechanical Engineering indicated they employed persons who were currently undertaking the SADETAFE Associate Diploma in Mechanical Engineering.

(A small proportion of respondents employed persons currently undertaking university engineering studies. A total of 121 organisations responded to a survey question concerning their employment of persons currently undertaking university studies, of which 9 organisations (or 7.4 per cent of respondents) indicated they employed persons currently undertaking university engineering studies.

- *Survey Respondents' Knowledge of SADETAFE Mechanical Engineering Courses*

Survey respondents were asked a series of question (via survey Question 6) concerning their knowledge about the Associate Diploma and Advanced Certificate in Mechanical Engineering offered by SADETAFE. Responses to these questions are shown in Tables 39 and 40 below.

Table 39: Survey Respondents' Knowledge of the SADETAFE Associate Diploma in Mechanical Engineering

Possible Response to Question	Number of Responses	Proportion of Total Responses (%)
Well informed	33	23.9
Partly informed	47	34.1
Not informed	58	42.2
TOTAL	138	100.0

Source: Survey data.

The data in Table 39 above indicates the majority of survey respondents were generally "well informed", or "partly informed" about the SADETAFE Associate Diploma in Mechanical Engineering with 23.9 per cent of respondents to this question saying they were "well informed" about the SADETAFE Associate Diploma and a further 34.1 per cent of respondents indicating they were "partly informed" about this SADETAFE engineering course.

However, the majority of survey respondents were *not* as well informed about the SADETAFE Advanced Certificate in Mechanical Engineering, as the data in Table 40 below indicates.

Table 40: Survey Respondents' Knowledge of the SADETAFE Advanced Certificate in Mechanical Engineering

Possible Response to Question	Number of Responses	Proportion of Total Responses (%)
Well informed	15	11.0
Partly informed	46	33.8
Not informed	75	55.1
TOTAL	136	100.0

Source: Survey data.

More than half of the organisations which responded to this survey question were "not informed" concerning the SADETAFE Advanced Certificate in Mechanical Engineering and only 11.0 per cent of respondents to this survey question were "well informed" about this course, with a further 33.8 per cent of respondents being "partly informed" about this course.

Hence, in summary as was the case in the accounting industry survey, while survey respondents generally were reasonably well informed about the SADETAFE Associate Diploma in Mechanical Engineering, they generally had more limited knowledge of lower level SADETAFE engineering courses.

- *TAFE Training Services Previously Used by Survey Respondents*

The majority of mechanical engineering survey respondents had used SADETAFE's services in respect to providing vocational training in mechanical engineering in the past. As was the case in respect to SADETAFE accounting training the overwhelming majority of mechanical engineering survey respondents had used existing SADETAFE courses, rather than training the workplace, a TAFE consultancy, or a tailored training program. As shown in Table 41 below, 67.6 per cent of respondents had used TAFE training through TAFE colleges, 18.0 per cent of respondents had used TAFE training in the workplace, 16.8 per cent had used TAFE consultancy services and 24.0 per cent had used tailored training by TAFE.

Table 41: Previous Use of TAFE Training Services by Mechanical Engineering Industry Survey Respondents

Type of Service	Number of Responses	Proportion of Total Responses (%)
TAFE training through existing courses	92	67.6
Workplace training provided by TAFE staff	18	18.0
TAFE Consultancy	17	16.8
Tailored Training by TAFE	25	24.0

Source: Survey data.

Note: This table synthesises the results of four questions. Proportions of total responses relate to responses to particular questions.

The high level of usage of TAFE services by mechanical engineering industry survey respondents indicates they have had a high level of exposure to TAFE vocational training in mechanical engineering, and reinforces the view that survey respondents generally have a reasonable working knowledge of SADETAFE training in mechanical engineering.

- *Survey Respondents' Views on SADETAFE Middle Level Training in Mechanical Engineering*

Survey respondents were asked two questions concerning the existing SADETAFE Associate Diploma in Mechanical Engineering. The first question sought survey respondents' opinions about the subject coverage in existing courses in the SADETAFE Associate Diploma in Mechanical Engineering (Question 7 in the mechanical engineering survey questionnaire). The second question sought survey respondents' views on the range of subjects provided in the SADETAFE Associate Diploma in Mechanical Engineering (Question 8).

Despite the fact that most respondents to the mechanical engineering industry survey indicated they had a good working knowledge of the SADETAFE Associate Diploma in Mechanical Engineering, there were only 96 (out of possible 139) responses to the first question. Responses to the question are shown in Table 42 below. The data suggests that most survey respondents consider the SADETAFE Associate Diploma in Mechanical Engineering provides adequate knowledge detailed in the required subject areas.

Table 42: Survey Respondents' Views on Subject Knowledge Included in the SADETAFE Associate Diploma in Mechanical Engineering

Possible Responses	Number of Responses	Proportion of Total Responses (%)
Excellent subject knowledge	7	7.3
Good subject knowledge	37	38.5
Reasonable subject knowledge	36	37.5
Poor subject knowledge	16	16.6
TOTAL	96	100.0

Source: Survey data.

However, although most survey respondents considered that the SADETAFE Associate Diploma in Mechanical Engineering provided students with a reasonable, good or excellent insight into required mechanical engineering subjects, the majority of survey respondents suggested training is needed in *additional* areas. A total of 61 out of 108 respondents to a survey question on this issue (or 56.5 per cent of survey respondents) suggested training was necessary in additional areas.

This data suggests that South Australian industry has rather mixed perceptions of the SADETAFE Associate Diploma in Mechanical Engineering. While most survey respondents generally viewed the material provided in particular subjects favourably, most felt that additional material should be included in the SADETAFE Associate Diploma in Mechanical Engineering.

- *Survey Respondents' Views on Specific Short Courses Versus the Existing SADETAFE Associate Diploma in Mechanical Engineering*

Industry's somewhat mixed perceptions of the SADETAFE Associate Diploma in Mechanical Engineering (as reflected in responses to the survey questions concerning the range and depth of knowledge provided by the course discussed immediately above) were also evident in responses to a survey question concerning survey respondents preferences between shorter, more specific courses of interest to their organisation and the present broad-based course. Ninety seven organisations responded to a survey question on this issue (Question 9). Sixty eight respondents, or 70.1 per cent of survey respondents, preferred the idea of formal short courses addressing particular topics of interest to the organisation concerned rather than the existing Associate Diploma in Mechanical Engineering.

- *Industry Acceptance of SADETAFE Training in Mechanical Engineering by Comparison with University Mechanical Engineering Training*

As was the case in the accounting industry survey, responses to the mechanical engineering industry survey indicate that the SADETAFE Associate Diploma in Mechanical Engineering was reasonably well accepted by survey respondents by comparison with university mechanical engineering training. As shown in Table 43 below, the SADETAFE Associate Diploma was "well accepted" by 39.2 per cent of the survey respondents to the mechanical engineering survey which answered a question canvassing this issue (Question 10), and "partly accepted" by 42.2 per cent of survey respondents. However, 18.6 per cent of survey respondents suggested the SADETAFE Associate Diploma in Mechanical Engineering was "not accepted" by comparison with university mechanical engineering courses.

Table 43: Industry Acceptance of SADETAFE Associate Diploma in Mechanical Engineering by Comparison With University Degree Courses

Possible Responses	Number of Responses	Proportion of Total Responses (%)
Well accepted	40	39.2
Partly accepted	43	42.2
Not accepted	19	18.6
TOTAL	102	100.0

Source: Survey data.

- *Using SADETAFE to Train Mechanical Engineering Staff in the Future*

The overwhelming majority of survey respondents indicated they would use SADETAFE to train their mechanical engineering staff in the future (although it should be noted that this survey question (Question 12) did not involve any comparisons with university training - i.e. survey respondents were **not** asked to indicate a preference between SADETAFE training and university training). As shown in Table 44 below, 81 of the 114 organisations, or 71.1 per cent of the organisations which responded to this question indicated they would use SADETAFE for mechanical engineering training in the future.

Table 44: Survey Respondents' Willingness to Use SADETAFE to Train Mechanical Engineering Staff in the Future

Possible Response	Number of Responses	Proportion of Total Responses (%)
Yes	81	71.1
No	33	28.9
TOTAL	114	100.0

Source: Survey data.

- ***Educational Qualifications etc Sought by Survey Respondents When Recruiting Mechanical Engineering Personnel***

As was the case in respect to the SADETAFE Associate Diploma in Accounting, although many survey respondents commented favourably on the SADETAFE Associate Diploma in Mechanical Engineering, only a minority of survey respondents actually seek persons holding an Associate Diploma in Mechanical Engineering when recruiting mechanical engineering personnel. Of the 114 organisations which responded to a survey question on this issue (Question 11), 81 organisations or 71.1 per cent of respondents suggested they *do not* actively seek persons holding an Associate Diploma in Mechanical Engineering when recruiting mechanical engineering personnel.

The overwhelming majority of survey respondents also considered experience learned on the job was more important than the educational qualifications when choosing a potential job candidate or in promoting persons to vacancies within their organisation. Of the 129 organisations which responded to a survey question on this issue, 108 organisations or 83.7 per cent of survey respondents, suggested they sought persons with relevant industry experience, rather than educational qualifications when recruiting new staff or promoting staff.

4.3.4 Some Conclusions Concerning the Mechanical Engineering Industry Survey

This section of the report has discussed the results of the *mechanical engineering* industry survey. The survey results suggest that:

- the overwhelming majority of survey respondents came from the South Australian manufacturing sector;
- survey respondents employed over 36000 people. Survey respondents are hence significant employers in a South Australian context;
- some 42.4 per cent of survey respondents indicated that the Associate Diploma in Mechanical Engineering was referred to in occupational definitions in industrial award(s) to which they were a respondent;
- a minority of respondents employed persons who had completed an Associate Diploma in Mechanical Engineering;
- survey respondents were generally reasonably well informed about the Associate Diploma in

Mechanical Engineering although they had a more limited knowledge of lower level SADETAFE engineering courses;

- the majority of mechanical engineering survey respondents had used SADETAFE training through existing courses, workplace training provided by TAFE staff, TAFE consultancy services, or tailored training;
- respondents to the mechanical engineering industry survey generally suggested existing subjects in the SADETAFE Associate Diploma in Mechanical Engineering covered the required material in suitable depth;
- *however most survey respondents felt training in additional areas was necessary;*
- most survey respondents favoured short courses rather than the existing courses;
- despite this, survey respondents largely accept the SADETAFE Associate Diploma in Mechanical Engineering vis-a-vis university training in mechanical engineering;
- and most survey respondents would be willing to use SADETAFE to train their mechanical engineering staff in the future;
- *however, despite the generally positive views expressed by survey respondents concerning SADETAFE training in mechanical engineering, most survey respondents do not seek persons holding a SADETAFE Associate Diploma in Mechanical Engineering when recruiting new staff or promoting existing staff;*
- moreover, most survey respondents indicated they seek experienced workers, rather than persons holding formal qualifications when recruiting new staff or promoting existing staff.

4.4 Analysis of Results of the Hospitality Industry Survey

4.4.1 Introduction

This Section of the report discusses the outcome of the survey of the South Australian hospitality industry which forms part of this project. Section 4.4.2 discusses selection of the survey population. This is followed by an analysis of the survey results in Section 4.4.3. Finally, in Section 4.4.4 some conclusions are presented concerning the outcome of the hospitality industry survey.

4.4.2 Choice of Survey Population

The hospitality survey population was drawn from South Australian hospitality providers from listings in the Yellow Pages for South Australia, including hotels, motels, restaurants, convention centres and licensed clubs.

The Yellow Pages listings indicated there were around 1200 businesses in these categories in South Australia. The survey mailing list was derived from these listings, by:

- culling out small business which were known to be owner-managed which hence were unlikely to provide a significant market for employment of hospitality management graduates
- focusing on those hospitality providers, e.g. major hotels, convention centres which seemed more likely to provide employment outlets for persons undertaking the Diploma in Hospitality Management.

4.4.3 Analysis of the Hospitality Industry Survey Results

- *Introduction*

This subsection discusses the results of the hospitality industry survey. As was the case in the preceding analyses of industry surveys, the discussion is based on actual responses to each survey question. (i.e. in some cases respondents did not reply to all the questions.)

- *Survey Results Considered by Industry*

In Table 45 below, responses to a survey question which requested that participating organisations nominate their main areas of activity are presented (Question 1).

Table 45: Main Area of Activity of Organisations Responding to the Hospitality Industry Survey

Industry	Number of Responses	Proportion of Total Responses (%)
Agriculture	-	-
Mining	-	-
Manufacturing	-	-
Electricity, Gas and Water	-	-
Construction	1	1.0
Wholesale & Retail Trade	5	4.8
Transport & Storage	-	-
Communication	-	-
Finance, Property & Business	-	-
Services	-	-
Public Administration & Defence	-	-
Community Services	-	-
Recreational, Personal & other services	98	94.2
TOTAL	104	100.0

Source: Survey data

As the data in Table 45 above indicates, the overwhelming majority (94.2 per cent) of survey respondents came from the recreation, personal and other services industry division, a logical outcome given the focus of this survey on the South Australian hospitality industry.

- *Number of Persons Employed by Survey Respondents*

Those organisations which responded to a question in the hospitality industry survey on this issue indicated they employed a total of 5014 persons. Unfortunately, not all survey respondents provided data on male and female employment. Those survey respondents who did provide disaggregated data indicated they employed 1882 males and 2415 females. The majority of males employed by survey respondents were employed on a full time basis (50.7 per cent). However, most females employed by survey respondents were employed on a casual basis. Some 60.5 per cent of females employed by survey respondents worked on a casual basis. A further 11.2 per cent of females employed by survey respondents were employed on a part-time basis.

- ***Recognition of the SADETAFE Diploma in Hospitality Management in Industrial Awards***

A minority of survey respondents indicated that the Diploma in Hospitality Management was recognised in occupational definitions in industrial awards to which they were a respondent.

As shown in Table 46 below, 92 organisations responded to a survey question (Question 13) concerning this issue. Forty organisations, representing 43.5 per cent of survey respondents, claimed the SADETAFE Diploma in Hospitality Management was recognised in the industrial award(s) under which their organisation operates.

Table 46: Recognition of the Diploma in Hospitality Management in Industrial Awards

Possible Response to Question	Number of Responses	Proportion of Total Responses (%)
Yes	40	43.5
No	17	18.5
Not applicable	35	38.0
TOTAL	92	100.0

Source: Survey data

- ***Proportion of Survey Respondents Employing Persons Who Had Completed the SADETAFE Diploma in Hospitality Management***

Of the 107 organisations which responded to the survey of hospitality activities, 99 organisations responded to a survey question (Question 3) concerning employment of persons who had completed the SADETAFE Diploma in Hospitality. A total of 23 organisations, or 23.2 per cent of respondents to this question, indicated they employed persons who had completed the SADETAFE Diploma in Hospitality.

A small proportion of hospitality survey respondents also indicated that they employed persons who had completed the SADETAFE Advanced Certificate in Hospitality (9.7 per cent of respondents).

- ***Proportion of Survey Respondents' Employing Persons Currently Studying the SADETAFE Diploma in Hospitality***

A large proportion of the organisations which responded to this question employed persons who were currently undertaking the SADETAFE Diploma in Hospitality Management. Some 32 organisations or 30.8 per cent of respondents to a survey question (Question 4) concerning employment of persons currently studying the SADETAFE Diploma in Hospitality Management indicated they employed persons who were currently undertaking TAFE hospitality studies.

In addition, a small proportion of respondents employed persons undertaking university hospitality studies. A total of 89 organisations responded to a survey question concerning their employment of persons currently undertaking university studies, of which 2 organisations (or 2.3 per cent of respondents to this question) indicated they currently employed persons undertaking university hospitality studies.

- ***Survey Respondents' Knowledge of SADETAFE Hospitality Management Courses***

Survey respondents were asked a series of questions (via survey Question 6) concerning their knowledge of the following SADETAFE hospitality courses: the Diploma in Hospitality

Management, the Advanced Certificate in Hospitality and the Hotel and Catering Operations Certificate. Responses to these questions are shown in Tables 47, 48 and 49 below.

Table 47: Survey Respondents' Knowledge of the SADETAFE Diploma in Hospitality Management

Possible Responses to Survey Question	Number of Responses	Proportion of Total Responses (%)
Well informed	27	25.5
Partly informed	42	39.6
Not informed	37	34.9
TOTAL	106	100.0

Source: Survey data

The data in Table 47 above indicates survey respondents were generally "well informed", or "partly informed" about the SADETAFE Diploma in Hospitality Management with 25 per cent of respondents to this question saying they were "well informed" about the SADETAFE Diploma in Hospitality Management and a further 39.6 per cent of respondents indicating they were "partly informed" about this SADETAFE hospitality course.

Table 48: Survey Respondents' Knowledge of the SADETAFE Advanced Certificate in Hospitality

Possible Response to Survey Question	Number of Responses	Proportion of Total Responses (%)
Well informed	18	17.3
Partly informed	42	40.4
Not informed	44	42.3
TOTAL	104	100.0

Source: Survey data

The majority of survey respondents also appear to have a reasonable knowledge of the SADETAFE Advanced Certificate in Hospitality, as the data in Table 48 above indicates. A total of 17.3 per cent of survey respondents indicated they were "well informed" about this course, and a further 40.4 per cent of survey respondents indicated they were "partly informed" about this course.

As shown in Table 49 below, the majority of respondents also indicated they had a reasonable knowledge of the SADETAFE Hotel and Catering Operations Certificate. A total of 23 respondents (or 22.3 per cent of survey respondents) suggested they were "well informed" about this course, with a further 44 respondents (representing 42 per cent of respondents), indicating they were "partly informed" about this course.

Table 49: Survey Respondents' Knowledge of the SADETAFE Certificate in Hotel and Catering Operations

Possible Response to Survey Question	Number of Responses	Proportion of Total Responses (%)
Well informed	23	22.3
Partly informed	44	42.7
Not informed	36	35.0
TOTAL	103	100.0

Source: Survey data

Hence, in summary, survey respondents generally viewed themselves as well informed about the SADETAFE Diploma in Hospitality Management as well as considering themselves to be well informed about hospitality training at lower levels via SADETAFE.

- ***TAFE Training Services Previously Used by Survey Respondents***

Responses to survey Question 5 indicate that only a small proportion of survey respondents had used SADETAFE vocational training services in the past. As shown in Table 50 below, only 33.7 per cent of respondents had used TAFE training through existing courses (well below the usage by respondents to the accounting or mechanical engineering industry surveys). Moreover, only 11.2 per cent of survey respondents had used TAFE services via training in the workplace, while 3.4 per cent of respondents had used TAFE consultancy services, and 6.8 per cent of survey respondents had used tailored training by TAFE.

Table 50: Previous Use of TAFE Training Services by Hospitality Industry Survey Respondents

Type of Service	Number of Responses	Proportion of Total Responses (%)
TAFE training through existing courses	33	33.7
Workplace training provided by TAFE staff	10	11.2
TAFE Consultancy	3	3.4
Tailored Training by TAFE	6	6.8

Source: Survey data

Note: This table synthesises the results of four survey questions. Proportions relate to responses to particular questions.

- ***Survey Respondents' Views on SADETAFE Middle Level Training in Hospitality***

Survey respondents were asked two questions concerning the SADETAFE Diploma in Hospitality Management. The first question sought opinions about the subject coverage in existing courses in the SADETAFE Diploma in Hospitality. (Question 7 in the survey questionnaire). The second question sought views on the range of subjects provided in the SADETAFE Diploma in Hospitality (Question 8).

Responses to these questions were limited. Only 77 organisations out of 107 survey respondents replied to Question 7.

As the data in Table 51 below indicates, the majority of organisations which did respond to Question 7, felt the SADETAFE Diploma in Hospitality Management provided "reasonable" or "good" knowledge of required subject areas. Only 6.5 per cent of those organisations which responded to this question suggested the extent of material provided in particular subject areas was, in their view, of poor quality.

Table 51: Survey Respondents' Views on Subject Knowledge Provided by the SADETAFE Diploma in Hospitality Management

Possible Responses	Number of Responses	Proportion of Total Responses (%)
Excellent subject knowledge	8	10.4
Good subject knowledge	36	46.8
Reasonable subject knowledge	28	36.4
Poor subject knowledge	5	6.5
TOTAL	77	100.0

Source: Survey data

However, a significant proportion of survey respondents suggested training was needed in additional areas to meet the needs of South Australia's hospitality industry. Fifty four respondents, or 72 per cent of respondents to a survey question canvassing this issue suggested vocational training was necessary in additional areas.

- ***Survey Respondents' Views on Specific Short Courses in Hospitality Management Versus the Existing SADETAFE Diploma in Hospitality Management.***

A large number of survey respondents, (38 out of 107 survey respondents), did not answer a survey question addressing this issue (Question 9 in the hospitality industry survey). However, the majority of organisations which did respond to this question indicated they would prefer short courses addressing specific issues of interest to them rather than the existing Diploma in Hospitality Management. Forty nine respondents, or 71.0 per cent of respondents to a survey question on this issue, preferred specific short courses.

- ***Industry Acceptance of SADETAFE Training in Hospitality Management by Comparison with University Training***

Responses to the hospitality industry survey suggest the SADETAFE Diploma in Hospitality Management was well accepted by survey respondents by comparison with university training. As shown in Table 52 below, which provides analysis of the results of a survey question addressing this issue (Question 10), 77 organisations (out of 107 survey respondents), responded to this question. The SADETAFE hospitality management course was "well accepted" by 45.5 per cent of survey respondents, and "partly accepted" by 48.1 per cent of survey respondents.

Table 52: Industry Acceptance of the SADETAFE Diploma in Hospitality Management by Comparison with University Degree Courses

Possible Responses	Number of Responses	Proportion of Total Responses (%)
Well accepted	35	45.5
Partly accepted	37	48.1
Not accepted	5	6.5
TOTAL	77	100.0

Source: Survey data

- *Using SADETAFE to Train Hospitality Management Staff in the Future*

The majority of survey respondents indicated they would use SADETAFE to train their hospitality management staff in the future (although it should be noted that this survey question (Question 12) did not involve any comparisons with university hospitality training - i.e. survey respondents were not asked to indicate a preference between SADETAFE training and university training). As shown in Table 53 below, 69 of the 98 organisations or 70.4 per cent of survey respondents which responded to this question indicated they would use SADETAFE for hospitality management training in the future.

Table 53: Survey Respondents' Willingness to Use SADETAFE to Train Hospitality Management Staff in the Future

Possible Responses	Number of Responses	Proportion of Total Responses (%)
Yes	69	70.4
No	29	29.6
TOTAL	98	100.0

Source: Survey data

- *Educational Qualifications and Experience Sought by Survey Respondents When Recruiting Hospitality Management Personnel*

As was the case in respect to the accounting and mechanical engineering industry surveys, although many respondents have commented favourably on the SADETAFE Diploma in Hospitality Management, very few survey respondents actively seek people holding a Diploma in Hospitality Management when recruiting new staff or making internal promotions. Only 17 organisations, or 17.5 per cent of the 97 organisations which responded to a survey question on this issue (Question 11), actively seek people holding a Diploma in Hospitality Management when recruiting new staff or promoting existing members of staff.

The vast majority of survey respondents viewed experience learnt on the job as more important than academic qualifications in recruiting staff or promoting existing staff. Ninety of the 101 organisations or 89.1 per cent of respondents which responded to a question on this issue (Question 14) rated on the job experience as being of more importance than academic qualifications when recruiting new staff or promoting existing staff.

4.4.4 Some Conclusions Concerning the Outcome of the Hospitality Industry Survey

This section of the report discusses the results of the survey of the South Australian hospitality industry which forms part of the project. The hospitality industry survey results indicate that:

- most survey respondents come from the hospitality industry;
- survey respondents indicated that in respect to their employees, male employment was generally full-time, while female employment was generally casual or part-time;
- survey respondents commonly stated that the Diploma in Hospitality Management was referred to in occupational definitions in industry awards;
- 30.8 per cent of respondents employed persons who had completed the SADETAFE Diploma in Hospitality Management;
- survey respondents generally viewed themselves as well informed about the SADETAFE Diploma in Hospitality Management;
- only a minority of survey respondents had previously used SADETAFE for vocational training of hospitality staff;
- the majority of survey respondents indicated that the SADETAFE Diploma in Hospitality Management provided "reasonable" or "good" knowledge of required subject areas. However, a majority of survey respondents suggested training was necessary in additional areas;
- the majority of survey respondents indicated they would prefer short courses on topics of interest to them rather than the existing course;
- despite this, most survey respondents suggested the SADETAFE Diploma in Hospitality Management is well accepted vis-a-vis university hospitality training;
- the majority of survey respondents indicated they would use SADETAFE to train hospitality management staff in the future;
- *however, as was the case in respect to the accounting and mechanical engineering industry surveys, respondents to the hospitality industry survey did not actively seek persons holding the Diploma in Hospitality Management when recruiting new staff or promoting staff and sought experienced staff rather than staff with academic qualifications.*

4.5 Overall Summary and Some Conclusions on the Results of the Industry Surveys

The three industry surveys which form part of this project have provided primary evidence to argument official data in areas where official data is either not collected, is inappropriate, or is not timely.

The survey questionnaires addressed questions such as:

- Are South Australian employers willing to employ SADETAFE graduates from the three target courses?
- Do South Australian employers value their employees SADETAFE vocational training?
- How do South Australian employers regard SADETAFE training vis-a-vis university training?
- Do South Australian employers actively seek persons with TAFE middle level training when recruiting?

- Are South Australian employers willing to use SADETAFE as a training provider in the future in respect to the three target courses?

The survey populations have been drawn from the main industries where graduates from the three target SADETAFE courses are generally employed. In selecting the survey population a conscious effort has been made to include both public and private sector employers and large and small organisations.

As shown in Table 54 below, response rates (adjusted) varied from 26.4 per cent for the hospitality industry survey to below per cent for the accounting industry survey. The response rates to the mechanical engineering and accounting surveys thus meets the general social science benchmark (of a 30 per cent survey response rate) and may be considered as being reasonably representative of the views of the survey population.

Table 54: Response Rates to Industry Surveys

	Mechanical Engineering	Hospitality Management	Accounting
Population	381	417	404
Returns	139	107	171
Returns to Sender	34	12	9
Raw Response Rate	36.5%	25.7%	42.3%
Adjusted Response Rate	40.1%	26.4%	43.3%

Source: Survey data

While the response rate to the hospitality industry survey appears relatively low, South Australian hospitality industry sources suggest that surveys of this industry frequently result in response rates as low as 5-10 per cent. Against this background, the response rate achieved in this survey is a credible result.

(It should also be noted that survey respondents employed, according to data supplied in the course of the three survey questionnaires, 91560 people. In the context of a small regional economy such as South Australia's, this implies the survey results are very credible, inasmuch as survey respondents provide over 15 per cent of total State employment).

The results of the three industry surveys have been discussed in detail, survey by survey, in Sections 4.2 to 4.4 above. It is not proposed to repeat that process here. Rather, this summary seeks to extract *common* experiences from the three industry surveys, as a means of attempting to reach *common* conclusions concerning the outcomes of the three industry surveys. Considered as a group, what do the industry surveys suggest?

- The three industry surveys suggest that SADETAFE middle level training is *not* widely recognised in certain industrial awards.

- The three industry surveys suggest a significant proportion of survey respondents employed persons who had completed one of the three target SADETAFE middle level courses or employed persons who were currently undertaking one of the target courses.

- A significant proportion of survey respondents were "well informed" or "partly informed" about the target SADETAFE courses.

- SADETAFE middle level training was generally well regarded by survey respondents vis-a-vis university training.

- Many survey respondents had used SADETAFE vocational training in the past, generally via existing courses. The majority of survey respondents also indicated they would utilise SADETAFE for vocational training in the future.

- Most survey respondents considered the target SADETAFE courses provided "excellent subject knowledge" or "good subject knowledge" in existing courses. However, as discussed above, the majority of respondents to the hospitality and mechanical engineering surveys suggested additional training is needed in some (new) areas.
- Opinion varied on the use of specific short courses of specific interest to survey respondents versus use of existing award courses. Respondents to the accounting survey generally preferred the existing concept of an award carrying course. However, the majority of respondents to the hospitality and mechanical engineering industry surveys favoured short courses.
- *Notwithstanding the generally positive perceptions of survey respondents to SADETAFE middle level training, the majority of respondents to each industry survey did not actively seek persons with qualifications from the three target SADETAFE courses when recruiting new staff or promoting staff. Moreover, most survey respondents valued on the job experience rather than academic qualifications when recruiting or promoting staff.*

Section 5: Analysis of The Results of the Graduate Surveys

5.1 Introduction

In Section 5 the results of three surveys of graduates from the SADETAFE Associate Diploma in Accounting, the Associate Diploma in Mechanical Engineering and the Diploma in Hospitality Management are presented.

The purpose of the surveys of graduates from these three target SADETAFE courses was to provide information concerning graduates' labour market experiences subsequent to completing their SADETAFE courses. Information of this nature is generally not available from official sources such as the Australian Bureau of Statistics. The surveys provide information concerning issues such as graduates' employment status, and whether they were employed (if employed) in occupations related to their vocational training through SADETAFE. In addition, through the surveys it has been possible to develop a profile of SADETAFE graduates from the three target courses in terms of characteristics such as age, ethnic origins and educational attainment prior to commencing TAFE studies.

Appendix 3 to this report gives information concerning the methodologies used in the graduate (and industry) questionnaires. Appendix 5 includes copies of the three graduate survey questionnaires.

The response rates to the three graduate survey questionnaires have been pleasing. In part this reflects the extensive efforts of NCVER staff to verify graduates' addresses, e.g. by reference to electoral rolls. Response rates to the individual graduate questionnaires are shown in Table 55 below.

(The survey response was also relatively high by comparison with similar social surveys. A survey by the Queensland Bureau of Employment, Vocational and Further Education and Training achieved a 52.1 per cent response rate,[1] while a survey of graduates from tourism and hospitality courses conducted by Tourism Training Australia achieved an adjusted response rate of 38 per cent in respect to South Australian hospitality and tourism graduates)[2]

Table 55: Response Rates to the Graduate Surveys

	Mechanical Engineering	Hospitality Management	Accounting
Population	200	111	222
Returns	128	54	169
RTS	22	21	7
Raw Response Rate	64.0%	48.7%	76.1%
Adjusted Response Rate	71.9%	60.0%	78.6%

Source: Survey data.

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[1] Weeks K. (1990) Queensland Bureau of Employment, Vocational and Further Education and Training, *1990 Graduate Destination Study*

[2] Chapman G. and Thorn W. Tourism Training Australia (1990) *A Study of Labour Market and Educational Outcomes of Graduates from Tourism and Hospitality Courses*

The relatively high response rates to the three graduate survey questionnaires suggest that it is reasonable to assume that the views of survey respondents are reasonably representative of the views of the total survey population in respect to each graduate survey.

5.2 Analysis of the Results of the Survey of Graduates from the SADETAFE Associate Diploma in Accounting

5.2.1 Introduction

This section of the report discusses the outcomes of the survey questionnaire with respect to persons who have completed the SADETAFE Associate Diploma in Accounting. Section 5.2.2 discusses the survey population. Section 5.2.3 discusses survey respondents' responses to the survey questions. Section 5.2.4 then presents some conclusions concerning the results of the survey.

5.2.2 Choice of Survey Population

The survey population was drawn from SADETAFE graduates from the Associate Diploma in Accounting, since the introduction of the course, from various SADETAFE Colleges in the metropolitan area of South Australia.

A total of 222 graduates from the SADETAFE Associate Diploma in Accounting were identified from Adelaide College of TAFE, Elizabeth College of TAFE, Kingston College of TAFE and Gilles Plains Colleges of TAFE.

The survey population was therefore broadly in line with the requirements for graduate survey questionnaires set out in the project profile, which called for a survey of 200 graduates from each of the target SADETAFE courses.

Given the objective of reviewing graduates' labour market experiences since graduating it was intended to survey graduates of some years standing. However, there have only been graduates from the SADETAFE Associate Diploma in Accounting in recent years, as this course only commenced in 1986. In addition, graduate numbers are not large.

Hence the survey population was largely drawn from 1989 and 1990 graduates.

5.2.3 Analysis of Results from the Survey of Graduates from the SADETAFE Associate Diploma in Accounting.

- ***Introduction***

The initial series of questions in the survey of SADETAFE accounting graduates were intended to provide an aggregate profile of survey respondents in terms of characteristics such as the age of survey respondents, ethnicity and aboriginality, educational attainment prior to attending SADETAFE, and survey respondents' modes of attending SADETAFE. Later questions in the survey questionnaire were intended to address issues such as survey respondents employment status, the extent to which their studies assisted in gaining employment (if employed), and the extent to which survey respondents used their SADETAFE vocational training in their employment (if employed), and whether survey respondents intended to undertake further studies (and, if survey respondents did plan to undertake further study, in what areas and where).

- *Gender of Survey Respondents*

One respondent did not respond to a question concerning the age of survey respondents (Question 3). A total of 52.7 per cent of respondents were male, while 46.8 per cent of respondents were female.

- *Age of Survey Respondents*

Survey respondents varied from 20 to 59 years of age, (according to responses to Question 3). As shown in Table 56 below, the largest proportion of survey respondents was in the 20-24 age group, followed by the 30-34 age group, and the 25-29 age group. Only a small proportion of survey respondents were aged over 35.

Table 56: Age of Respondents to the Survey of Graduates from the Associate Diploma in Accounting

Age Group	Proportion of Total Response
20-24	30.2%
25-29	19.5%
30-34	22.5%
35-39	12.2%
40-44	8.3%
45+	4.1%

Source: Survey data

- *Survey Respondents' Modes of Attending SADETAFE*

As shown in Table 57 below, responses to a survey question on modes of attending SADETAFE (Question 7) indicate that the majority of survey respondents studied on a part-time basis. This is in line with expectations given that SADETAFE offers this course on a part-time basis at most Colleges.

Table 57: Survey Respondents' Modes of Attending SADETAFE (Accounting)

Modes of Attendance	Number of Responses	Proportion of Total Responses (%)
Full-time	41	24.3%
Part-time	121	71.6%
External	7	4.1%

Source: Survey data

- *Aboriginality and Ethnic Origins of Survey Respondents*

Responses to a survey question concerning the ancestry of survey respondents (Question 5) indicated that none of the respondents to the accounting graduate survey were aboriginals or Torres Strait Islanders. However, 23.1 per cent of survey respondents were of a non-English speaking background.

- ***Survey Respondents' Level of Secondary Education Prior to Studying at SADETAFE***

Responses to Question 4 in the accounting graduate survey indicate that 64.5 per cent of survey respondents had completed year 12 prior to commencing their SADETAFE studies. In addition, a further 27.2 per cent of survey respondents had completed year 11 prior to commencing their SADETAFE studies. Only 7.7 per cent of survey respondents had completed year 10 or less prior to commencing studies with SADETAFE.

This data suggests that many survey respondents see undertaking an Associate Diploma in Accounting as either an alternative to university education or as a stepping stone towards a university education.

- ***Survey Respondents' Reasons for Undertaking Studies With SADETAFE***

Table 58 below shows the main reason given by respondents to the accounting graduate survey for undertaking the SADETAFE Associate Diploma in Accounting (survey Question 8).

Table 58: Survey Respondents' Reasons for Undertaking the SADETAFE Associate Diploma in Accounting

Main Reason	Number of Responses	Proportion of Total Responses (%)
To get a job	41	24.1
Job requirement	5	2.9
To get a better job	68	40.0
To get extra skills	29	17.1
To change jobs	12	7.1
To get into another course	9	5.3
Other reasons	6	3.5
TOTAL	170	100.0

Source: Survey data

Note: As survey respondents could make multiple responses to this question, the number of responses exceeds the survey population.

As the data in Table 58 above indicates, the most common reasons given by survey respondents for undertaking the SADETAFE Associate Diploma in Accounting were:- "to get a better job"; "to get a job" and "to gain extra skills".

- ***Survey Respondents' Current Employment Status***

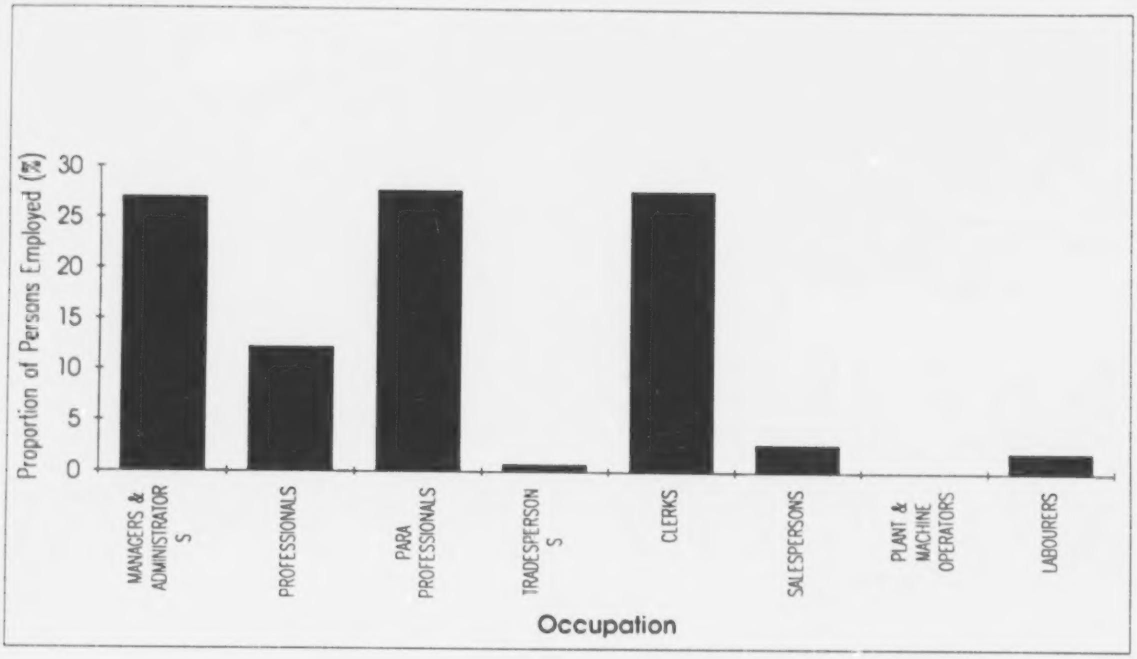
One hundred and sixty eight graduates from the SADETAFE Associate Diploma in Accounting responded to a survey question (Question 11) concerning their current employment status (only one graduate did not respond to this question). At the time the survey was conducted 148 SADETAFE accounting graduates were employed, representing 88.0 per cent of respondents. Twenty graduates, or 12.0 per cent of respondents to this question were not employed at the time the survey was conducted.

That is unemployment is relatively low among survey respondents by contemporary standards in South Australia.

- ***Survey Respondents' Employment Considered by Occupation***

Question 13 of the survey questionnaire requested that SADETAFE Accounting graduates describe their present job according to ASCO Major Groups. As the data in Figure 10 below indicates, the majority of respondents who replied to this question viewed themselves as clerks, para-professionals, managers and administrators and professionals. Only a few respondents described themselves as salespersons, labourers or tradespersons.

Figure 10: **SA DETAFE Accounting Graduates, Employment by Occupation**



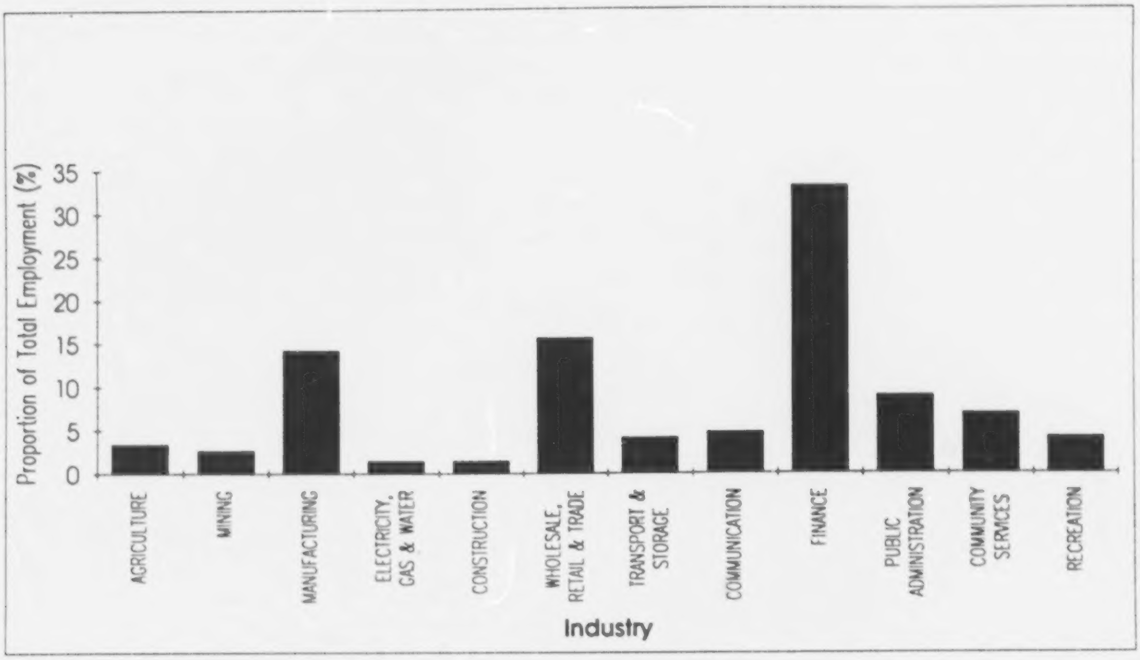
Source: Survey Data

To some degree, the data in Figure 10 again highlights the problems initially described in Section 2 concerning likely occupational outcomes arising from undertaking the SADETAFE Associate Diploma in Accounting. The survey data again suggests that there is no single dominant occupational outcome likely to arise from undertaking this SADETAFE course.

- ***Employment of Survey Respondents Considered by Industry***

Figure 11, over, sets out the results of a survey question (Question 14), which requested survey respondents to describe the industry they considered themselves to be employed in, the majority of survey respondents considered themselves to be employed in the South Australian finance, property and business services industry division, the manufacturing sector and wholesale and retail trade industry division. The remaining respondents were employed in small numbers in a variety of industries throughout the State economy.

Figure 11: **SA DETAFE Accounting Graduates, Employment by Industry**



Source: Survey data

The diversity of survey respondents' employment outcomes suggests that graduates from the SADETAFE Associate Diploma in Accounting are well accepted in the finance, property and business services industry division as well as in many other industries throughout the South Australian State economy.

- ***Contribution of Middle Level Studies in Attaining Employment***

All of the survey respondents (whether they had been employed prior to commencing their studies or had been working in their present job after commencing their SADETAFE Associate Diploma course) were asked a question concerning the usefulness of their SADETAFE accounting studies in attaining employment (Question 16).

A total of 140 graduates from the Associate Diploma in Accounting responded to this question. The graduates' responses indicate that the majority of DETAFE Associate Diploma in Accounting graduates had found their studies of significant benefit in attaining employment. A total of 32.9 per cent of graduates considered their qualifications were essential in getting their job, and 27.1 per cent considered it was very helpful, (although not essential). Some 14.2 per cent of graduate respondents suggested the course only "helped a bit" while a further 25.8 per cent suggested their course had "made no difference" in getting their present job.

With respect to those 87 respondents who had started work on their present job after commencing their SADETAFE accounting studies, a total of 42 graduates (48.3 per cent) suggested their SADETAFE accounting qualification was essential, and that they would not have got a job without this qualification. A further 25 graduates (28.7 per cent of respondents to this question) suggested their Associate Diploma was very helpful (although not essential) in getting their job). Only 8.0 per cent of graduates who had attained their job after commencing their course suggested their Associate Diploma made no difference in terms of getting their job.

The underlying message to be drawn from these responses is that SADETAFE middle level accounting qualifications appear useful in assisting accounting graduates to attain employment and that many survey respondents would be unlikely to be employed in their current position if they had not undertaken their SADETAFE Associate Diploma in Accounting.

- ***Recognition of SADETAFE Associate Diploma in Accounting and Industrial Awards under Which Survey Respondents Were Employed.***

A total of 149 graduates responded to a question in the accounting graduate survey questionnaire concerning recognition of their SADETAFE Associate Diploma course in the industrial awards under which survey respondents were employed (Question 17). Only 32 accounting graduates or 21.5 per cent of survey respondents responded positively to this question. Of the remaining respondents, 40.9 per cent stated their course was not recognised in the award under which they were employed, 20.7 per cent of respondents indicated the question was not applicable to their employment circumstances, and 17.4 per cent of respondents didn't know if their industrial award made reference to the SADETAFE Associate Diploma in Accounting.

The low proportion of respondents who considered that their SADETAFE studies were recognised in their industrial award again highlights the difficulties first discussed in Section 2 concerning the existence of a discrete autonomous employment base for persons undertaking this course.

- ***Survey Respondents' Further Study Intentions***

Responses to Question 9 in the accounting graduate survey indicate that the overwhelming majority of respondents intended to undertake further study (77.5 per cent of survey respondents). Of those respondents intending to undertake further study, 65.4 per cent intended to study at university, 26.9 per cent intended to study at TAFE, while 7.7 per cent intended to study at "other" institutions.

The majority of respondents intending to undertake further studies were intending to again study accounting (63.8 per cent).

The high proportion of graduates wishing to undertake further studies in accounting graphically highlights the need for well developed articulation arrangements between SADETAFE and South Australian universities in the accounting field.

- *Relevance of Respondents' SADETAFE Studies to their Current Employment*

As show in Table 59 below, a total of 149 graduates provided responses to a question (Question 18) in the survey questionnaire regarding the relevance of their SADETAFE studies to their current employment. The majority of survey respondents considered their studies were at least of some relevance to their current employment. Indeed, 36.2 per cent of respondents considering their studies were highly relevant to their employment, while a further 49.0 per cent of respondents considered their studies had some relevance to their employment. Only 14.7 per cent of respondents considered their SADETAFE vocational training had very little or no relevance to their employment.

Table 59: Relevance of SADETAFE Accounting Studies to Survey Respondents' Current Employment (All Respondents)

Possible Response	Number of Responses	Proportion of Total Responses (%)
Highly relevant	54	36.2
Some relevance	73	49.0
Very little relevance	9	6.0
Not relevant at all	13	8.7
TOTAL	149	100.0

Source: Survey data

Survey respondents who had commenced their current employment subsequent to starting their DETAFE studies in accounting generally suggested that their SADETAFE studies were highly relevant to their positions. As shown in Table 60 below, 50.6 per cent of graduates who commenced their current employment after starting their studies found their studies highly relevant to their employment. In addition, a further 35.6 per cent of persons responding to this question considered their studies had some relevance to their position.

Table 60: Relevance of SADETAFE Accounting Studies: Survey Respondents Who Commenced their Current Position after Starting TAFE Studies

Possible Response	Number of Responses	Proportion of total Responses (%)
Highly relevant	44	50.6
Some relevance	31	35.6
Very little relevance	3	3.4
Not relevant at all	9	10.3
TOTAL	87	100.0

Source: Survey data

The survey questionnaire also requested respondents to consider how much they used the knowledge gained from their course in their present job (Question 19). The results of responses to this question are shown in Table 61 below.

Table 61: Survey Respondents' Use of Knowledge Gained from their SADETAFE Accounting Course in their Current Employment

Possible Response	Number of Responses	Proportion of Total Responses (%)
75-100%	28	18.8
50-75%	53	35.6
25-50%	36	24.2
0-25%	32	21.5
TOTAL	149	100.0

Source: Survey data

The survey data suggests that survey respondents do commonly use the knowledge gained from their SADETAFE vocational training in accounting in their employment. Only 21.5 per cent of survey respondents suggested they use 25 per cent or less of the knowledge gained in their SADETAFE accounting course in their jobs.

Not surprisingly, SADETAFE accounting graduates who commenced their current employment after starting their SADETAFE studies tended to use a greater proportion of their knowledge of accounting methods gained from their SADETAFE Associate Diploma in Accounting regularly in their jobs. As shown in Table 62 below 28.7 per cent of survey respondents who started their current jobs after commencing their SADETAFE vocational training in accounting used 75-100 per cent of the knowledge used in their studies in their employment (compared with 18.8 per cent for *all* survey respondents). In addition, a further 40.2 per cent of respondents in this group used 50-75 per cent of the knowledge gained in their course in their employment (compared with 35.6 per cent for *all* survey respondents).

In summary, SADETAFE accountancy studies were commonly relevant to survey respondents' employment (especially for those survey respondents who commenced their present employment after starting their studies). Survey respondents also frequently used their SADETAFE accountancy skills in their employment (again, especially in respect to survey respondents who commenced in their current job after starting their SADETAFE accounting studies).

Table 62: Use of Knowledge Gained from the SADETAFE Associate Diploma in Accounting: Survey Respondents Who Commenced their Current Position after Starting TAFE Studies

Possible Response	Number of Responses	Proportion of Total Responses (%)
75-100%	25	28.7
50-75%	35	40.2
25-50%	14	16.1
0-25%	13	14.9
TOTAL	87	100.0

Source: Survey data

5.2.4 Some Conclusions Concerning the Outcomes of the Survey of SADETAFE Accounting Graduates

This survey sought to provide answers to the following questions:

- do SADETAFE accounting graduates usually manage to enter employment after undertaking vocational training through SADETAFE?
- is accounting graduates' employment usually related to their SADETAFE studies?
- were SADETAFE accounting graduates studies helpful in getting their jobs (if employed)?

The survey data overwhelmingly supports the conclusion that middle level SADETAFE accounting training is of assistance in gaining employment, and that SADETAFE accounting graduates tend to use the knowledge and skills gained from their studies in their employment.

It is also of interest that a significant proportion of SADETAFE Accounting graduates are relatively young, that most graduates have completed Year 12 and most graduates intend to undertake further studies, usually in accounting. As noted above, this suggests that many survey respondents see undertaking an Associate Diploma in Accounting either as an alternative to university education or as a useful stepping stone in entering university.

This suggests that articulation between SADETAFE Accounting courses and university accounting courses in South Australia is an issue of major significance to many students and that it is important that articulation policies be developed and widely promulgated to assist students to further their studies.

5.3 Analysis of the Results from the Survey of Graduates from the SADETAFE Associate Diploma in Mechanical Engineering

5.3.1 Introduction

This section of the report discusses the outcomes of the survey questionnaire with respect to those persons who have completed the SADETAFE Associate Diploma in Mechanical Engineering.

Section 5.3.2 discusses the survey population. Section 5.3.3 discusses responses to the survey questions. Finally, in Section 5.3.4 below some conclusions are presented concerning the results of the survey.

5.3.2 Choice of Survey Population

The survey population was drawn from graduates from the Associate Diploma in Mechanical Engineering from Regency College of TAFE in South Australia. Given that the aim of the survey was to test the labour market experiences of graduates following completion of their studies, the survey population was drawn from 1986-1990 students, who had had greater exposure to the labour market than more recent graduates.

The survey population comprised 200 graduates (as required in the project profile). However there was only one female graduate from Regency College in the period from 1986-1990.

- *Gender of Survey Respondents*

Virtually all of the graduates who responded to the mechanical engineering graduate survey were male. One respondent out of the 128 who replied to this question was female.

- *Age of Survey Respondents*

Survey respondents varied from 22 to 54 years of age, according to responses to Question 3. As the data in Table 63 below indicates, the majority of survey respondents were aged 25-29 (31.1 per cent of respondents) and 30-34 (28.9 per cent of respondents). Surprisingly, relatively few respondents to this graduate survey were aged 20-24 (only 3.9 per cent of respondents).

Table 63: Age of Respondents to the Survey of Graduates from the Associate Diploma in Mechanical Engineering

Age Group	Number of Responses	Proportion of Total Responses (%)
20 - 24	5	3.9
25 - 29	40	31.1
30 - 34	37	28.9
35 - 39	23	18.0
40 - 44	15	11.7
45 +	8	6.2
TOTAL	128	100.0

Source: Survey data

- *Survey Respondents' Modes of Attending SADETAFE*

As shown in Table 64 below, responses to a survey question (Question 7) on modes of attending TAFE indicate that the overwhelming majority of survey respondents undertook their studies on a part-time basis. This is in line with expectations given that the course is generally offered on a part-time basis.

Table 64: Survey Respondents' Modes of Attending SADETAFE (Mechanical Engineering)

Mode of Attendance	Number of Responses	Proportion of Total Responses (%)
Full-time	15	11.8
Part-time	109	85.8
External	3	2.4
TOTAL	127	100.0

Source: Survey data

- *Aboriginality and Ethnic Origins of Survey Respondents*

Responses to a survey question (Question 5) querying the ancestry of survey respondents indicate that none of the 119 graduates who responded to a question on this issue were aboriginals or Torres Strait Islanders. However, 13.6 per cent of survey respondents came from a non English speaking background.

- ***Survey Respondents' Level of Secondary Education Prior to Attending SADETAFE***

Responses to Question 4 in the mechanical engineering graduate survey questionnaire indicate that the majority of survey respondents had completed Year 11 or Year 12 prior to attending SADETAFE. More than half of the survey respondents had completed Year 11 (56.3 per cent of survey respondents) and a significant proportion had completed Year 12 (28.9 per cent of respondents).

- ***Survey Respondents' Reasons for Undertaking Studies With SADETAFE***

Table 65 below shows the main reason given by SADETAFE mechanical engineering graduates for undertaking the SADETAFE Associate Diploma in Mechanical Engineering in response to a survey question on this issue (Question 8). As the data in Table 65 indicates, by far the most common reason given by survey respondents for undertaking their course was "to get a better job". Other reasons frequently advanced by survey respondents included "job requirement", "to get extra skills", "to change jobs" and "to get a job".

Table 65: Survey Respondents' Reasons for Undertaking the SADETAFE Associate Diploma in Mechanical Engineering

Main Reason	Number of Responses	Proportion of Total Responses (%)
To get a job	12	8.6
Job requirement	15	10.8
To get a better job	80	57.6
To get extra skills	14	10.1
To change jobs	13	9.4
To get into another course	02	1.4
Other reasons	03	2.2
Total	139	100.0

Source: Survey data

Note: As survey respondents could make multiple responses to this question, total responses exceed the survey population.

- ***Survey Respondents' Current Employment Status***

One hundred and twenty eight graduates from the SADETAFE Associate Diploma in Mechanical Engineering responded to a survey question (Question 11) concerning their current employment status. At the time the mechanical engineering graduate survey was conducted 116 mechanical engineering graduates were employed, representing 90.6 per cent of survey respondents. Twelve graduates, or 9.4 per cent of survey respondents were not employed at the time the mechanical engineering graduate survey was conducted.

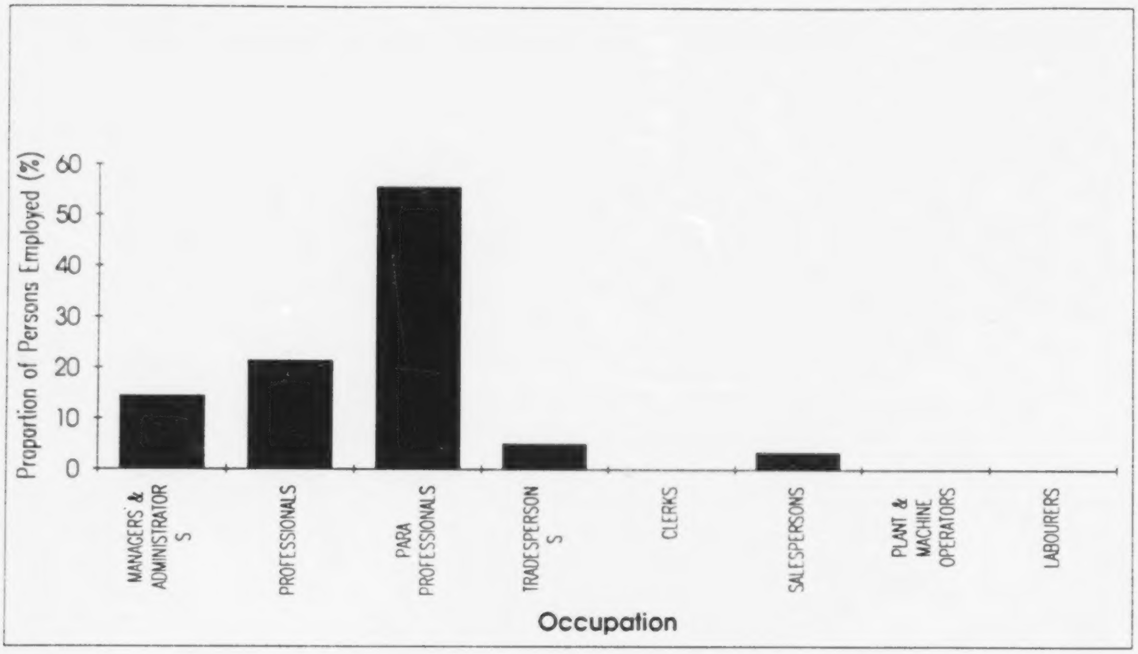
Responses to Question 20 in the mechanical engineering graduate survey indicated that, of 15 graduates who responded to this question who were not currently working, nine were unemployed and 6 were studying.

The majority of mechanical engineering survey respondents worked on a full-time basis. One hundred and eight, or 93.1 per cent of respondents to a question canvassing this issue (Question 12) worked on a full-time basis.

- ***Survey Respondents' Employment Considered by Occupation***

Question 13 of the mechanical engineering graduate survey requested that SADETAFE mechanical engineering graduates describe their current job according to ASCO Major Groups. As the data in Figure 12 below indicates, the majority of respondents to this survey question described themselves as paraprofessionals (55.6 per cent of survey respondents). The next most common occupations were those of professionals (21.4 per cent of survey respondents) and manager/administrators (14.5 per cent of survey respondents).

Figure 12: SA DETAFE Mechanical Engineering Graduates, Employment by Occupation

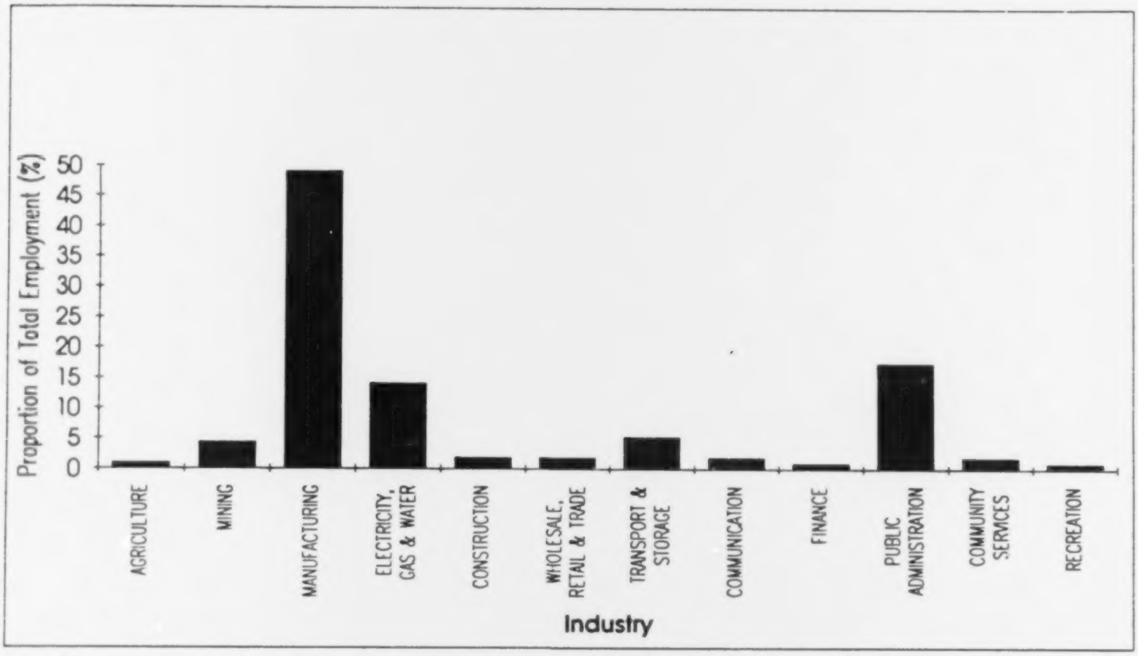


Source: Survey data

■ *Employment of Survey Respondents Considered by Industry*

As shown in Figure 13 below, which sets out the results of a survey question (Question 14) which requested that survey respondents describe the industry they consider themselves to be employed in, most survey respondents considered themselves to be employed in the manufacturing sector (49.1 per cent of survey respondents), public administration and defence (17.5 per cent of survey respondents) and electricity gas and water (14.0 per cent of survey respondents).

Figure 13: SA DETAFE Mechanical Engineering Graduates, Employment by Industry



Source: Survey data

- ***Contribution of Middle Level Studies in Attaining Employment***

One hundred and seventeen persons responded to a survey question asking whether they commenced their current position after commencing their SADETAFE mechanical engineering studies. Ninety persons, representing 76.9 per cent of respondents, indicated they had commenced their current position after starting their SADETAFE studies in replies to Question 15 in the survey.
All survey respondents were asked how helpful their studies were in gaining employment. A total of 116 mechanical engineering graduates responded to a survey question on this issue (Question 16). The majority of the survey respondents indicated that completing their SADETAFE mechanical engineering qualification had made a significant contribution in gaining their present position. Indeed, more than half of the persons responding to this question (56.0 per cent of respondents) suggested their studies were "essential" and they "would not have got the job without it". A further 30 respondents (or 25.9 per cent of respondents to this question) stated that their qualification had been "very helpful, but not essential", in gaining employment. Only 11 persons or 9.5 per cent of survey respondents suggested their studies had "made no difference" in gaining their job.

With respect to those persons who had commenced their position *after* commencing their SADETAFE mechanical engineering studies, as could be anticipated from the immediately preceding discussion, the majority of survey respondents suggested their SADETAFE mechanical engineering qualifications made a significant contribution in attaining their job. Fifty seven persons, representing 63.3 per cent of respondents to the mechanical engineering survey who had started in their present job *after* commencing their SADETAFE studies stated that their qualifications were "essential" and that they "would not have got their jobs" without their SADETAFE mechanical engineering qualification. A further 24.4 per cent of survey respondents who had commenced their jobs after starting their SADETAFE studies stated their qualifications were "very helpful" but not "essential". Only 5 respondents out of the 90 who had commenced their current job after starting their SADETAFE studies indicated that their qualifications had "made no difference" in getting their present position.

- ***Recognition of the SADETAFE Associate Diploma in Mechanical Engineering in Industrial Awards under Which Survey Respondents Were Employed***

One hundred and sixteen persons responded to a survey question addressing this issue (Question 17). Seventy four persons, or 63.3 per cent of survey respondents, stated that the SADETAFE Associate Diploma in Mechanical Engineering was recognised in the industrial award they worked under.

- ***Survey Respondents' Further Study Intentions***

Survey Question 9 asked Mechanical Engineering graduates if they intended to undertake any further study and whether they intended to study at University, TAFE, or elsewhere. The majority of respondents indicated they intended to undertake further study. Ninety one graduates, representing 71.6 per cent of the 127 persons who replied to Question 9, intended to undertake further study.

Most survey respondents who responded to the second part of the question, intended to undertake further study at TAFE. Fifty six out of 89 persons who responded to this question (or 62.9 per cent of respondents to this part of Question 9), intended to study at TAFE. University was the next most common choice of place of study with 33.7 per cent of respondents intending to undertake further study at University.

However, responses to Question 10 suggest that only a minority of respondents intend to undertake further studies in mechanical engineering. Ninety graduates responded to this question. Sixty seven respondents, representing 74.4 per cent of respondents to this question, indicated they intended to undertake courses unrelated to mechanical engineering.

- *Relevance of Survey Respondents' SADETAFE Studies to their Current Employment*

Most respondents to the mechanical engineering graduate survey found their SADETAFE studies at least of some relevance to their work. As shown in Table 66 below, which records response to a survey question canvassing this issue (Question 18), 35.9 per cent of survey respondents stated that their studies are "highly relevant" to their employment, and a further 43.6 per cent of respondents considered their studies had "some relevance" to their employment.

Table 66: Relevance of SADETAFE Mechanical Engineering Studies to Survey Respondents' Current Employment (All Respondents)

Possible Response	Number of Responses	Proportion of Total Responses (%)
Highly relevant	42	35.9
Some relevance	51	43.6
Very little relevance	18	15.4
Not relevant at all	6	5.1
TOTAL	117	100.0

Source: Survey data

There was little difference in perceptions concerning this issue between mechanical engineering graduates who held their jobs before starting their SADETAFE studies and these graduates who started their current job after commencing their SADETAFE mechanical engineering studies. As the data in Table 67 below indicates, 37.8 per cent of survey respondents who started their current job after commencing their SADETAFE studies considered their studies "highly relevant" to their jobs, (i.e. compared with 35.9 per cent of *all* respondents to this survey) and 44.4 per cent of persons who had started their current job after commencing their SADETAFE studies considered their studies of "some relevance" to their job (compared with 43.6 per cent of *all* respondents to this survey).

Table 67: Relevance of SADETAFE Mechanical Engineering Studies: Survey Respondents Who Commenced their Current Position after Starting TAFE Studies

Possible Response	Number of Responses	Proportion of Total Responses (%)
Highly relevant	34	37.8
Some relevance	40	44.4
Very little relevance	11	12.2
Not relevant at all	5	5.6
TOTAL	90	100.0

Source: Survey data

Most of the persons who responded to the mechanical engineering graduate survey indicated they used a reasonable proportion of the knowledge gained from their course in their present job. As shown in Table 68 below responses to Question 19 in the survey indicated that 10.3 per cent of respondents use 75-100 per cent of the knowledge gained from their course in their job, with 33.3 per cent of respondents using 50-75 per cent of the knowledge gained from their course in their job, and 32.5 per cent of respondents using 25-50 per cent of the knowledge from their course in their job.

Table 68: Survey Respondents' Use of Knowledge Gained from their SADETAFE Mechanical Engineering Course in their Current Employment

Possible Response	Number of Responses	Proportion of Total Responses (%)
75 - 100%	12	10.3
50 - 75%	39	33.3
25 - 50%	38	32.5
0 - 25%	28	23.9
TOTAL	117	100.0

Source: Survey data

5.3.3 Some Conclusions Concerning the Outcomes of the Survey of Mechanical Engineering Graduates

It appears that the majority of respondents to the mechanical engineering graduate survey are employed. Indeed, many survey respondents were employed *prior* to commencing their SADETAFE mechanical engineering studies.

In part, the employment status of many mechanical engineering graduates prior to commencing their studies is reflected both in the average age of graduates and in the reasons given by survey respondents to undertaking studies with SADETAFE. Respondents to the mechanical engineering graduate survey were generally older than graduates from the SADETAFE Associate Diploma in Accounting, and the most common reason given for undertaking middle level engineering studies though SADETAFE was to get a better job.

Most respondents to the mechanical engineering survey considered themselves to be paraprofessionals, and most respondents worked in South Australia's manufacturing sector.

The majority of survey respondents considered their SADETAFE studies had been of benefit to them in getting their present positions. Moreover, most survey respondents found their studies relevant to their position, and used a considerable proportion of the knowledge from their SADETAFE course in their job.

The majority of respondents to this survey indicated they intended to undertake further study. The majority indicated they wished to study at TAFE.

5.4 Analysis of the Results of the Survey of Graduates from the SADETAFE Diploma in Hospitality Management

5.4.1 Introduction

This section of the report discusses the outcomes of the survey questionnaire with respect to persons who have completed the SADETAFE Diploma in Hospitality Management. Section 5.4.2 discusses the survey population. Section 5.4.3 discusses survey respondents' responses to the survey questions. Section 5.4.4 then presents some conclusions concerning the results of the survey.

5.4.2 Choice of Survey Population

The choice of survey population for the hospitality survey questionnaire represents a compromise between availability of data and the criteria set out in the project profile, (which calls for a survey population of 200 for each of the graduate surveys) and the desire to include only graduates with sufficient exposure to the State labour market to (hopefully) attain employment.

First, the Diploma in Hospitality Management is a relatively new award, and to date there have not been large numbers of graduates. Second, Regency College had difficulty in accessing data for graduates prior to 1989.

Ultimately, a survey population of 111 graduates emerged. Most respondents had completed their studies in 1990 or 1991. Many graduates have therefore not had significant opportunities to develop there careers.

5.4.3 Analysis of Results from the Survey of Graduates from the SADETAFE Diploma in Hospitality Management

- *Gender of Survey Participants*

Responses to Question 2 in the Hospitality Graduate Survey indicate that most of the persons who responded to the survey of SADETAFE Hospitality Graduates were female. Thirty six respondents out of a total of fifty-four respondents were female, representing 66.6 per cent of respondents to the hospitality graduate survey.

- *Age of Survey Respondents*

Responses to a survey question (Question 3) which requested information concerning the ages of respondents to the hospitality graduate survey are presented in Table 69 below. As the data in Table 69 indicates, most of the persons who responded to this survey question were aged between 20 and 24 years of age. A total of 33 persons or 62.3 per cent of respondents came within this age group.

Table 69: Age of Respondents to the Survey of Graduates from the Diploma in Hospitality Management

Age Group	Number of Responses	Proportion of Total Responses (%)
20 - 24	33	62.3
25 - 29	8	15.1
30 - 34	8	15.1
35 - 39	2	3.8
40 - 44	-	-
45 +	2	3.8
TOTAL	53	100.0

Source: Survey data

- *Survey Respondents' Modes of Attending SADETAFE*

Question 7 in the hospitality graduate survey sought information concerning students modes of attending SADETAFE. As the Diploma in Hospitality Management is only offered on a full-time basis, all of the hospitality graduates attended SADETAFE on a full-time basis, as indicated in Table 70 below.

Table 70: Survey Respondents' Modes of Attending SADETAFE (Hospitality Management)

Mode of Attendance	Number of Responses	Proportion of Total Responses (%)
Full-time	54	100.0
Part-time	-	-
External	-	-
TOTAL	54	100.0

Source: Survey data

- *Aboriginality and Ethnic Origins of Survey Respondents*

All respondents were asked questions about their ancestry (Question 5). None of the respondents were aboriginals or Torres Strait Islanders. In addition, relatively few survey respondents were from a non-English speaking background. Only 5 persons, representing 10.6 per cent of respondents to a question on this issue, were from a non-English speaking background.

- *Survey Respondents' Level of Secondary Education*

Survey respondents were requested to provide information concerning the level of secondary schooling they had achieved prior to attending SADETAFE via Question 4 in the survey. Fifty four hospitality management graduates responded to this question. Most hospitality graduate survey respondents had completed Year 12, with 41 persons (or 75.9 per cent of respondents to this question) having completed Year 12. Most of the remaining respondents (11 out of 13 remaining respondents) had completed Year 11.

- *Respondents' Reasons for Undertaking Studies With SADETAFE*

Table 71 below presents hospitality survey respondents main reasons for studying hospitality management with SADETAFE. As the data in Table 71 below indicates, the most common reasons given by survey respondents for undertaking the SADETAFE Diploma in Hospitality Management included getting a job (48.1 per cent of respondents), changing jobs (22.2 per cent of respondents) and getting a better job (20.4 per cent of respondents).

Table 71: Survey Respondents' Reasons for Undertaking the SADETAFE Diploma in Hospitality Management

Main Reason	Number of Responses	Proportion of Total Responses (%)
To get a job	26	48.1
Job requirement	-	-
To get a better job	11	20.4
To get extra skills	1	1.9
To change jobs	12	22.2
To get into another course	-	-
Other reasons	4	7.4
TOTAL	54	100.0

Source: Survey data

- ***Survey Respondents' Current Employment Status***

Responses to Question 11 in the hospitality management graduate survey indicate that the majority of persons who responded to the hospitality management graduate survey were employed. Forty eight persons, representing 88.9 per cent of respondents to the hospitality management survey, were employed at the time the survey was conducted.

Survey Question 12 requested information on whether respondents were working on a full-time, part-time or casual basis. The majority of respondents to the hospitality management graduate survey were employed on a full-time basis, with 70 per cent of persons who responded to this survey question working on a full-time basis. However, the incidence of casual employment was relatively high, with 23.4 per cent of survey respondents working on a casual basis. This undoubtedly reflects the nature of the hospitality industry where a large proportion of the workforce works on a casual basis, (as discussed in respect to the hospitality management industry survey in Section 4).

Tourism Training Australia's survey of the labour market and educational outcomes from tourism and hospitality courses also indicated that while the majority of tourism and hospitality graduates were employed, there was a high incidence of casual work, suggesting many graduates were under employed.[3]

With respect to those six hospitality management graduates who were *not* employed at the time the hospitality management graduate survey questionnaire was undertaken, three graduates were studying, two were unemployed, and one was unemployed/studying.

- ***Employment of Survey Respondents Considered by Occupation***

Question 13 in the hospitality management graduate survey questionnaire requested that SADETAFE hospitality management graduates describe their present occupation in terms of ASCO Major Groups. As the data in Figure 14 below indicates, the majority of graduates who responded to this question considered themselves to be employed as managers/administrators (41.3 per cent of respondents to this question) and sales persons (28.3 per cent of respondents to this question).

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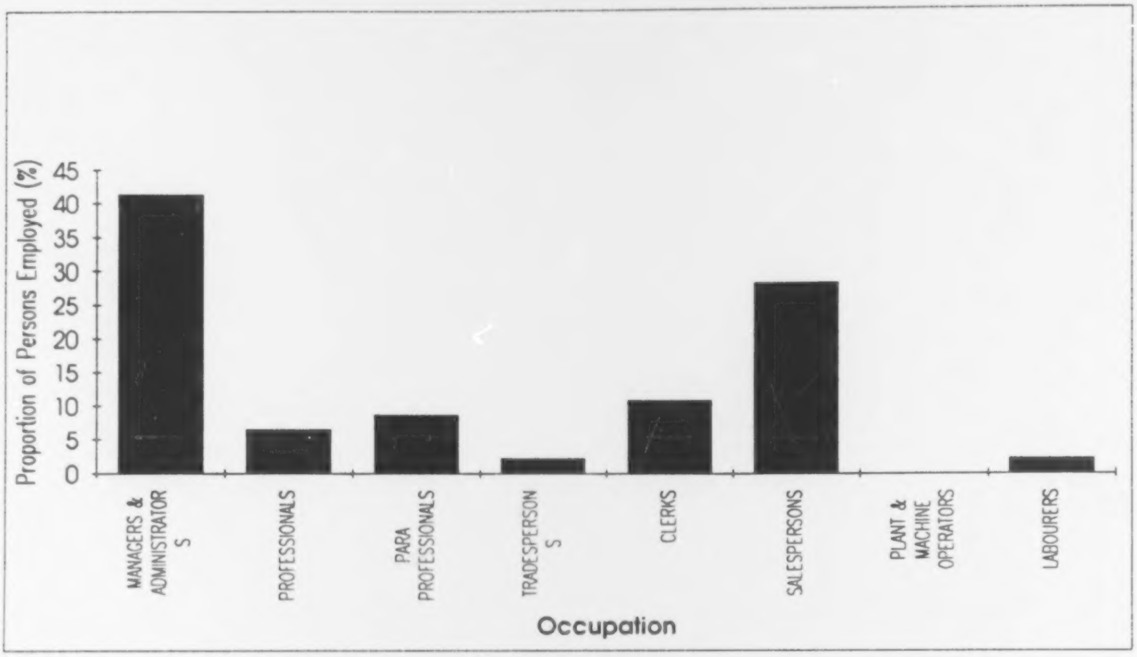
[3] Chapman G and Thorn W, *Tourism Training Australia*, Op. Cit., p. 7

Figure 14: SA DETAFE Hospitality Graduates, Employment by Occupation

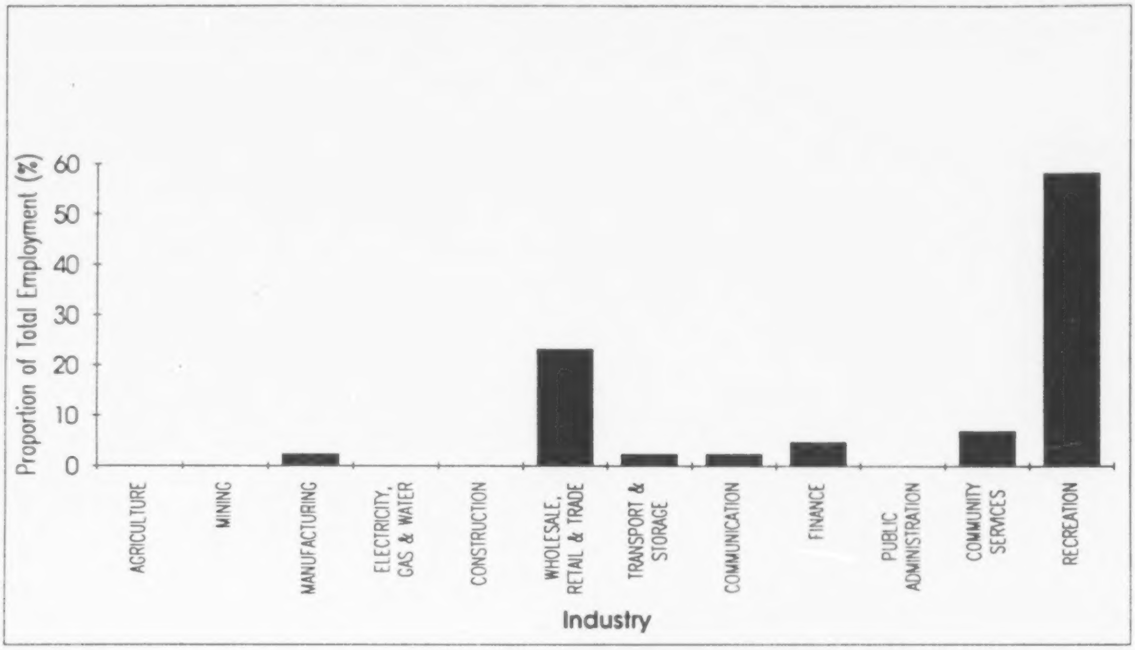


Source: Survey data

- ***Survey Respondents' Employment Considered by Industry***

Not surprisingly, given the specialised nature of the SADETAFE Diploma in Hospitality Management with its focus on hospitality management occupations, as shown in Figure 15 below, most survey respondents worked in the recreation, personnel and other services industry division (58.1 per cent of survey respondents). A high proportion of hospitality management graduates also worked in the wholesale and retail trade industry division (23.2 per cent of survey respondents).

Figure 15: SADETAFE Hospitality Graduates, Employment by Industry



Source: Survey data

- *Contribution of Middle Level Studies in Attaining Employment*

All of the survey respondents (whether they had been employed prior to commencing their studies or had been working in their present job after commencing their SADETAFE Diploma course) were asked a question concerning the usefulness of their SADETAFE hospitality management studies in attaining employment (Question 16).

A total of 48 graduates from the Diploma in Hospitality Management responded to this question. The graduates' responses indicate the majority of DETAFE Diploma in Hospitality Management graduates had found their studies of significant benefit in attaining employment. A total of 36.8 per cent of graduates considered their qualifications were essential in getting their job, and 35.4 per cent considered their SADETAFE qualifications were very helpful, (although not essential). Some 22.9 per cent of graduate respondents suggested the course only "helped a bit" and only 12.5 per cent of respondents suggested their course had "made no difference" in getting their present job.

Tourism Training Australia's (TTA) study of hospitality graduates also strongly suggested that respondents to TTA's survey found their hospitality studies of benefit in attaining employment.[4]

With respect to those 35 respondents who had started work on their present job after commencing their SADETAFE hospitality management studies, a total of 15 graduates (37.1 per cent) suggested their SADETAFE qualification was essential, and that they would not have got a job without this qualification. A further 11 graduates (31.4 per cent of respondents to this question) suggested their Diploma was very helpful (although not essential) in getting their job). Only 11.4 per cent of these graduates suggested their SADETAFE studies had made "no difference" in getting a job.

The underlying message is that, with respect to those hospitality management graduates who were employed at the time the graduate surveys were conducted, SADETAFE hospitality management qualification had been of significant assistance in attaining employment.

- *Recognition of the SADETAFE Diploma in Hospitality Management in Industrial Awards*

A total of 48 hospitality management graduates responded to a survey question in the hospitality management graduate survey questionnaire concerning recognition of the SADETAFE Diploma in Hospitality Management in the industrial award under which they worked. The majority of hospitality management graduates responded positively to this question. A total of 52.1 per cent of hospitality management gradates considered themselves to be employed under an industrial award.

- *Survey Respondents' Further Study Intentions*

Question 9 in the hospitality management graduate survey questionnaire requested information concerning graduates' further study intentions. Fifty-one graduates replied to this survey question, of whom 42 persons, or 82.3 per cent of respondents, intended to undertake further study. The majority of respondents intended to study at university (65.1 per cent of respondents), although a substantial proportion of SADETAFE hospitality management graduates who responded to this survey intended to study at TAFE (27.9 per cent of respondents).

However, the majority of survey respondents did not intend to undertake further studies in hospitality. Twenty-four students, representing 55.8 per cent of survey respondents to a survey question addressing this issue, intend to study "other" subject areas.

- *Relevance of Survey Respondents SADETAFE Studies to their Employment*

As shown in Table 72 below, a total of 48 hospitality management graduates provided responses to a question in the survey questionnaire regarding the relevance of their SADETAFE studies to their current employment (Question 18). The majority of respondents to this question considered their studies were "highly relevant", or of "some relevance" to their current employment. Twenty graduates (40.8 per cent of respondents) considered their studies were "highly relevant" to their employment and a further 18 graduates (38.8 per cent of respondents) indicated their studies were of "some relevance" to their employment.

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[4] Idib. p. 12.

Table 72: Relevance of SADETAFE Hospitality Management Studies to Hospitality Survey Respondents' Current Employment (All Respondents)

Possible Response	Number of Responses	Proportion of Total Responses (%)
Highly relevant	20	40.8
Some relevance	18	38.8
Very little relevance	4	8.2
Not relevant at all	6	12.2
TOTAL	48	100.0

Source: Survey data

As the data in Table 73 below indicates, survey respondents who had commenced their current position *after* starting their SADETAFE studies were relatively similar to those for *all* students, with 42.9 per cent of respondents in this group suggesting their SADETAFE studies were "highly relevant" to their employment, (by comparison with 40.8 per cent for all hospitality graduates who responded to the survey) and 34.3 per cent of respondents indicating their studies were of "some relevance" (compared with 38.8 per cent for all hospitality graduates).

Table 73: Relevance of SADETAFE Hospitality Management Studies: Survey Respondents Who Commenced their Current Position after Starting TAFE Studies

Possible Response	Number of Responses	Proportion of Total Responses (%)
Highly relevant	15	42.9
Some relevance	12	34.3
Very little relevance	3	8.6
Not relevant at all	5	14.3
TOTAL	35	100.0

Source: Survey data

As the data in Table 74 below indicates, respondents to the hospitality management graduate survey generally considered that they do tend to use a considerable extent of the knowledge gained from their SADETAFE course in their current employment. Twelve persons, representing 25.0 per cent of survey respondents, considered that they use 75 - 100 per cent of the knowledge gained from their SADETAFE course in their current employment, with a further 13 persons, or 27.1 per cent of respondents, indicating they used 50 - 75 per cent of the knowledge gained from their course in their work.

Table 74: Survey Respondents' Use of Knowledge Gained from their Hospitality Management Course in their Current Employment

Possible Response	Number of Responses	Proportion of Total Responses (%)
75 - 100%	12	25.0
50 - 75%	13	27.1
25 - 50%	13	27.1
0 - 25%	10	20.8
TOTAL	48	100.0

Source: Survey data

5.4.4 Some Conclusions Concerning the Outcome of the Survey of SADETAFE Hospitality Management Graduates

As was the case in respect to the surveys of accounting and mechanical engineering graduates, it appears that most SADETAFE hospitality management graduates are employed, although a relatively high proportion of hospitality management graduates are employed on a casual basis.

The hospitality management graduate survey data supports the conclusion that undertaking the Diploma in Hospitality Management has assisted a significant proportion of SADETAFE graduates to attain employment. This assistance gained from this vocational qualification would seem likely to be of especial significance as most of the survey respondents were relatively young (aged 20-24) and hence would seem likely to have limited employment experience.

(These conditions are, generally speaking, consistent with those from an earlier study of labour market and educational outcomes from tourism and hospitality courses from a survey conducted by the Tourism Training Authority.)

Most survey respondents also indicated that their vocational training was relevant to their employment, and that they used a substantial proportion of the skills and knowledge arising from their SADETAFE vocational training in the course of their work. This would seem likely given that most survey respondents indicated that they worked (as would be expected) in the hospitality industry and that a significant proportion of survey respondents considered themselves to be working in management positions.

A significant proportion of survey respondents indicated they intended to undertake further study, generally at university, although most respondents indicated that their future studies would not be in a hospitality related area.

5.5 Some Conclusions on the Outcomes of the Three Graduate Surveys

It is obviously difficult to make strong *general* conclusions about the overall outcomes of three surveys of graduates from three courses as disparate as the three target SADETAFE middle level courses under discussion in this paper. Nonetheless, in this summary an attempt has been made to draw together some of the common experiences of graduates from the SADETAFE Associate Diploma in Accounting, the Associate Diploma in Mechanical Engineering and the Diploma in Hospitality Management. From these common experiences it is hoped that valid conclusions can be drawn not only in respect to the three target SADETAFE courses, but also in regard to wider provision of middle level training by SADETAFE.

As stated earlier in this Section, the analysis in Section 5 has primarily attempted to address questions such as whether SADETAFE graduates from target courses are employed, on what basis they are employed, (i.e. full-time, part-time or casual), whether their SADETAFE studies assisted them in gaining employment (if employed) and whether graduates SADETAFE studies are relevant to their work. Graduates further study intentions have also been an area of interest.

The three graduate survey questionnaires have tended to suggest that:-

- graduates from the three courses are employed in similar proportions to the rest of the South Australian community (i.e. unemployment amongst graduates from the target courses is not excessive) although a relatively large proportion of SADETAFE hospitality graduates were employed on a casual basis and for many graduates who commenced their current position after starting their SADETAFE studies, their studies were essential and they would not be employed in their present position without their SADETAFE middle level vocational training;

- graduates' SADETAFE middle level vocational training has commonly assisted them to gain employment;

- generally speaking, a substantial proportion of graduates from these three SADETAFE courses find their studies relevant to their work, and use a substantial proportion of the knowledge and skills gained from their SADETAFE middle level training in the course of their work.

It is also noteworthy that many SADETAFE graduates from the three target courses intend to undertake further study, generally at University (although most mechanical engineering graduates intended to study at SADETAFE). It is therefore important that articulation issues be addressed to ensure that SADETAFE students receive credit for their middle level studies in an orderly, consistent fashion, rather than on an ad hoc basis.

Section 6: Analysis of the Outcomes of Case Studies of Graduates from the Three Target SADETAFE Courses

6.1 Introduction

The following case studies are based on interviews with graduates from the three target SADETAFE courses, the SADETAFE Associate Diploma in Accounting, the Associate Diploma in Mechanical Engineering and the Diploma in Hospitality Management. However, to protect the interests of individual students, real names have not been used at any point in the following discussion. Rather pseudonyms have been used in all instances where reference has been made to the experiences of particular graduates from any of the target SADETAFE courses (although, by and large, to further ensure the confidentiality of particular students, we have attempted to look at common experiences which have affected most graduates' labour market experiences). In addition the names of employers of SADETAFE graduates have not been cited in this report to further protect students' privacy.

▪ *Purpose of the Graduate Case Studies*

The graduate cases studies are intended to augment the information available from the industry surveys (discussed in Section 4) and the graduate surveys (discussed in Section 5) which form part of this project. The case studies provide an opportunity for a more detailed analysis of the labour market experiences of persons who have graduated from the target SADETAFE courses some time ago. In this way the contribution of SADETAFE middle level training to longer term career development can be assessed.

▪ *Case Study Methodology*

The case studies involved conducting intensive interviews with selected graduates, based on a pre-prepared schedule of questions. All case study participants were asked the same questions (although graduates were also encouraged to provide further information, if available on an individual ad hoc basis). A copy of the schedule of case study questions is attached at Appendix 6.

▪ *Basis of Selection of Case Study Participants*

Case study participants were selected against a number of criteria. These criteria included:

- willingness to participate in the case studies (ie. volunteers only!);
- gender balance - a major intention was to examine both male and female career progression to compare the contribution of SADETAFE middle level training;
- career progression - candidates for the case studies generally were longer term graduates who had a greater opportunity to develop their careers (although for graduates from the Associate Diploma in Accounting and the Diploma in Hospitality Management this was difficult given the recent development of these courses).

6.2 Analysis of Case Studies of Graduates from the SADETAFE Associate Diploma in Accounting

Background

Case study interviews were conducted with five graduates from the SADETAFE Associate Diploma in Accounting. Of the graduates interviewed, two were employed by major financial institutions, one was employed in a major accounting firm, and two were employed by major private national companies.

Actual positions held by graduates interviewed included an auditor, an accountant, a commercial accounts manager, a clerk and a graduate whose position was amongst the accounting support staff.

Four of the five graduates were employed on a full-time basis. Only one graduate was employed part-time. Two of the graduates interviewed were male and three were female.

Graduates were employed in companies which varied significantly in terms of size as indicated by employee numbers. The majority of SADETAFE accounting graduates were employed in companies with approximately 50-200 employees. However some accounting graduates interviewed during the case studies worked in companies employing between 1500-2000 people.

Main Reasons for Undertaking Middle Level Studies through SADETAFE

Reasons provided for undertaking the SADETAFE Associate Diploma in Accounting varied considerably amongst the accounting graduates interviewed during the case studies. Reasons given included:

- gaining promotional opportunities;
- becoming a member of the NIA;
- wanting to do an accounting course;
- gaining qualifications and recognition;
- changing employment;
- moving into a management position;
- improving prospects for career advancement; and
- furthering opportunities at work.

In one case, a graduate was prompted to undertake the Associate Diploma in Accounting by her former employer. The former employer suggested that to be considered for a promotion she would have to do further study, because *if you want to get anywhere you have to study.*

In summary, most case study participants undertook their SADETAFE accounting course to improve their career prospects.

Main Areas of Responsibility

The accounting graduates who took part in the case studies were asked to list the main tasks their position required them to perform. Areas of responsibility varied significantly among the accounting graduates who were interviewed. The main tasks graduates said they were required to perform have been organised into the following groups:

General Accounting Tasks:

- taxation & accounting work;
- company & partnership trusts;
- preparing financial statements;
- cash flows;
- preparation of annual returns.

Staff Training:

- training staff in the area of personal computers and the use of spreadsheet software.

Front Counter Banking Procedures:

- issuing and updating Bankcards, ITM cards etc;
- preparation of accounts;
- updating changes to accounts.

Specific Accounting Tasks:

- analytical work ie. analysing client's performance;
- legal documentation;
- portfolio maintenance;
- setting up spreadsheets — risk monitoring;
- management reporting;
- preparing budgets;
- forecasting.

General Office Procedures:

- secretarial work;
- general enquires;
- ledger work;
- key punching.

Auditing Tasks:

- internal auditing;
- special investigation;
- EDP auditing.

Case study participants therefore performed a wide variety of tasks

▪ *Relevance of SADETAFE Studies to Current Position*

Most SADETAFE accounting graduates stated that the Associate Diploma in Accounting was a pre-requisite in obtaining their position. In most instances, their employers had been looking specifically for someone who was either doing an accounting course or someone who had recently completed an accounting course. Comments included:

> *One of the specifications of the position was the undertaking or completion of accounting studies.*
>
> *An accounting course was actually specified by the company, that is, an accounting qualification and experience was a pre-requisite.*

Only one graduate stated that the associate diploma was not a pre-requisite for obtaining his position. This graduate did, however, feel that the Associate Diploma in Accounting did contribute to some degree to gaining his position by stating *qualifications are not a pre-requisite, but they are considered*.

The majority of SADETAFE accounting graduates also felt that the course was relevant to their current position of employment. "Helen", (a pseudonym) in particular felt that approximately 75 per cent of the course was relevant to her current position as a clerk.

"Jenny", however, felt that the Associate Diploma in Accounting was not relevant to her job or more precisely it was *indirectly relevant rather that directly relevant* to her current position. She attributes this to the fact that the position she holds is not a pure accounting one, but is in the area of management accounting. Thus "Jenny" relies more on financial accounting knowledge.

"Jenny" also highlighted an interesting situation within her company. Because of the nature of the area she works in, "Jenny" does not use her Associate Diploma in Accounting to any significant degree. As stated by "Jenny", *if I was in another area I would use it a lot more.* Jenny gave an example of one particular department in her organisation in which she could use her Associate

Diploma in Accounting a lot more. The contradiction arose when she stated that *you can't get into this area without a degree.*

There seemed to be a common feeling among graduates that while the course did provide them with good grounding, this initial grounding had to be developed or built on with either on-the-job experience or in some cases with further study. Typical comments by case study participants included:

> *It covered a good spectrum as far as an introduction to accounting goes....it was satisfactory.*
>
> *The basic grounding was good...it was a good starting point.*

Other SADETAFE accounting graduates felt that particular segments of the Associate Diploma in Accounting were more relevant than others. In particular a number of graduates found the computing aspects of the course very useful. Comments included:

> *I learnt how to use spreadsheets and it allowed me to become more familiar with computers;* and
>
> *The computer studies were relevant.... however, more and more of what I learnt is becoming relevant.*

"Tim" (another pseudonym) summarised the major benefit of undertaking the SADETAFE Associate Diploma in Accounting in the following way:

> *It provided me with a better business manner and a methodological approach, I am more professional as a result.*

Thus, while the SADETAFE associate diploma was generally relevant to case study participants' employment, on-the-job training was also important.

- ***Wider Range of Tasks***

Four of the five accounting graduates interviewed stated that they are now required to perform a wider range of tasks since completing the SADETAFE Associate Diploma in Accounting. The tasks accounting graduates are required to perform are now more numerous. Many of the graduates have also been given more responsibility. The reasons as to why graduates had been given more responsibility were numerous. "Peter" said that since completing the Associate Diploma in Accounting, the level of work he is required to perform has increased *both in volume and complexity.*

Experience was seen to be an important contributor to a persons ability to perform a wider range of accounting tasks. "Jenny" (a pseudonym for a case study participant) felt that *the ability to perform a wider range of tasks is not totally as a result of the course, it may be partially attributed to the course, but it is also a result of gaining more experience.* "Karen" also stated *the longer I've been in the company the more confident they've become in my ability to perform.*

A number of SADETAFE accounting graduates said they were now more autonomous in their work and had less supervision of their activities since having completed the SADETAFE course. That is, many of the graduates are now left to their own devices, they are either less supervised or not supervised at all. "Tim" stated:

> *A higher level is expected of me since finishing the course, this is demonstrated mainly through less supervision.*

Hence, most case study participants now perform a wider range of tasks with less supervision.

- ***Range and Depth of Tasks Performed by Case Study Participants***

Opinions varied among graduates concerning whether the course had helped them develop the range and depth of skills required in their positions. Most graduates interviewed during the case studies did however feel that the course did provide them with an adequate range and depth of skills. "Tim" found that *when you look at something you understand 9/10ths of it.* "Karen" also felt that the course gave her a better understanding of the work she is required to perform. She stated, *the main advantage of the associate diploma is that it gave me a solid background in accounting, therefore I didn't have to learn everything from scratch, I was given a job and I did it, through the skills learnt as part of the course.*

"Peter", in particular, seemed to think that the SADETAFE Associate Diploma in Accounting allowed him to perform tasks at a higher level or in *more depth than fellow workers who have no formal qualifications.* On the other hand, a number of graduates questioned the actual contribution the course made to their ability to perform their tasks in more depth. In particular, a number of graduates felt that experience contributed more to developing the depth of skills required in their positions.

An increasingly important factor, according to case study participants, which has contributed to graduates being given a wider range of tasks and more responsibility has been due to the fact that a number of organisations have recently reduced their staff numbers with the remaining employees having to take on heavier workloads as a result.

In "Helen's" case, for example, she was required to perform a greater number of more difficult tasks than other employees because she was the only employee in her workplace to have completed the SADETAFE Associate Diploma in Accounting.

As previously stated, only one of the five graduates interviewed said they were not expected to perform a wider range of tasks since completing the course. She stated:

> *I work in an area which has a number of degree qualified accountants. These degree qualified employees carry out the more complex tasks.*

This graduate went on to state that this has in fact limited her ability to perform a wider range of tasks.

In summary, there was no consistent view amongst case study participants on this issue.

- ***Course Acceptance among Employers***

The degree to which the SADETAFE Associate Diploma in Accounting is accepted varies enormously amongst companies and staff, according to case study participants.

Of the five graduates interviewed during the case studies, only two felt that the course was very well accepted by either the person to whom they report or by senior management in their organisation. "Tim", for example, felt that the course was appreciated by management because it provided him with technical knowledge and it also gave him the advantage of having skills other employees do not have.

"Helen" also stated that the Associate Diploma in Accounting is very well accepted by senior management in her company. She said this is demonstrated by the fact that the SADETAFE Associate Diploma in Accounting is an approved course which is financially backed by the company and is formally recognised as part of the company's yearly employee performance review.

On the other hand, the other three graduates were less positive about their experiences. Graduates perceptions' of the course within their companies ranged from:

> *the boss doesn't really care what you've got, a piece of paper is not impressive at all, what matters is if you can do the job.*
>
> *I have an old-fashioned manager who has fairly traditional views on the role of both women and qualifications.*
>
> *the person to whom I report is not overly impressed by the Associate Diploma.*

Several graduates believe that a number of their fellow staff members, management in particular, feel that the Associate Diploma in Accounting is not as good as a degree or other higher qualifications. "Jenny" stated that *the associate diploma is not very well accepted in comparison to the degree.* In fact, "Jenny" was encouraged by the company to study further (to do a university degree in accounting).

"Karen" also found it necessary to study further. This was due to the fact that while the person to whom she reports feels that the course is *pretty good*, and believes the course has provided her with a good grounding and worthwhile technical skills, they still do not think it is as good as other higher qualifications. Furthermore, "Karen" felt that other partners and staff members in the company (who have degrees and PY's) do not accept the course as well, *when you're working with people with degree's or PY's, they may not think it (the associate diploma) is as good as a degree and without a degree or PY you can't become a partner anyway.*

An interesting comment made by "Tim" was that while the Associate Diploma in Accounting is accepted by the person to whom he reports (mainly because this person did the same course ie. when it was a certificate), *senior management do not look so much at the actual title, but are more interested in professional memberships ie. being a member of the NIA.*

To conclude, acceptance of the SADETAFE associate diploma among employers of cast study participants varied significantly.

- ***Coverage of Case Study Participants under Industrial Awards***

As discussed in earlier sections of this report (eg. Section 2) recognition of an occupation in industrial awards is an important test as to whether an autonomous occupation exists. Case study participants were therefore asked questions concerning the recognition of their SADETAFE Associate Diploma in Accounting in industrial awards.

The accounting graduates who were interviewed as part of the case studies were either:

1) Not covered by an industrial award,
   not related to what I do, not relevant, as stated by Peter;

2) Not sure whether they are covered by an award; or

3) Not sure which industrial award they are covered under.

Amongst the five case study participants only "Helen" could actually name the industrial award under which she was covered. The industrial award in this case was the company's own particular industrial award. While the associate diploma was not formally recognised in this particular award, the company had decided to formally accept the course.

Hence it appears likely that most SADETAFE accounting graduates are not employed under an industrial award.

- ***Study Support Provided by Employers to Case Study Participants***

The provision of study assistance is an important indicator of employers' acceptance of a particular course. Four of the five accounting graduates who took part in the case studies received some form of study support from their employers while studying. In a number of cases the provision of study support was actual company policy. Study support was provided to graduates in the form of study leave, leave for exams and the payment of fees and books. Comments by case study participants included:

> *Up to 10 working days a year are provided for study leave. Employees are reimbursed for such costs as, full-payment of fees, books and stationery on passing each subject. A bonus is also given for each year of study completed, with an extra bonus given at the end of the course.*
>
> *The company allowed days off for study leave, the week prior to exams. They also allowed a day off for the exam. If an employee passed a subject they were given a bonus, and a the end of the course a substantial bonus was given. This has now changed. The company now reimburses graduates for their fees and books.*
>
> *The company provided study leave for exams, study leave for classes, payment of fees on satisfactory completion of subjects and part-payment of book. Study must however be relevant to one's job.*

Only "Peter" said that his company does not have a policy of supporting people who undertake any form of study.

Hence most firms provided study assistance to case study participants.

- ***Factors Considered by Employers When Recruiting or Promoting Staff***

SADETAFE accounting graduates who participated in the case studies said that their employers tend to consider both on-the-job experience and formal qualifications when considering promoting their staff.

As stated by "Karen":

> *both are considered, except the firm tends to lean more towards formal qualifications, in particular a degree when promoting. You can't go much further without doing a degree.*

"Peter" felt that his company considered both qualifications and on-the-job experience when recruiting or promoting staff, but he felt that *you also need to be the right person for the job*. Speaking about his experience within the company "Peter" said, *people without a qualification may be promoted above a person with a qualification.*

In one particular company all employees are required to have formal qualifications (not necessarily in accounting) (all except employees in the sales department). "Tim" elaborated by saying that all auditors in his company hold formal qualifications *and are encouraged to study further.*

"Helen" pointed out that formal qualifications are included in her company's yearly employee performance review. That is, any study done by an employee is noted in the employee performance review. "Helen" went on to say that *every year the company conducts a performance review of all its employees. Employees are reviewed for their performance. Formal qualifications are also part of the review process.*

Only "Jenny" thought her company was likely to place more importance on whether a person could handle a job, rather than whether they had a qualification. Nevertheless, "Jenny" went on to say that *if two people were competing for the same position, and both could handle the job, then the person with the qualification would get the job.*

Hence while most case study participants suggested industrial experience was a major factor in their employers recruitment or promotion decision, their qualifications were also of assistance.

- ***Promotions Received by Case Study Participants Since Completing the SADETAFE Associate Diploma in Accounting***

When asked if they had experienced a promotion since completing the course, most accounting graduates said they had not been formally promoted. Nevertheless each had experienced a gradual increase in their responsibilities. As stated by "Tim":

> *There has not been an immediate jump in career progression, rather a gradual increase in responsibilities.*

Case study participants commonly attributed a lack of promotional opportunities to significant organisational restructuring, as a result of the 1990/92 economic recession. This has commonly involved a reduction in staff numbers in accounting firms and more generally throughout the State economy and a flattening of organisational structures.

"Tim" for example stated:

> *The company has undergone significant restructuring, including a substantial slicing away of part of its middle level management, therefore chances for promotion have been limited.*

During the case study interview, each graduate was also asked if they were working prior to starting their Associate Diploma in Accounting. They were also asked what positions they had held during this time. From the information provided it can be reasonably concluded that most graduates are now in significantly different positions and have a greater degree of responsibility. For example, prior to beginning the Associate Diploma in Accounting "Karen" was employed in a junior position, she then moved into a junior management position and on completing the Associate Diploma in Accounting she now is employed in an accounting support position.

A number of graduates were employed in clerical positions prior to beginning the Associate Diploma in Accounting and have since progressed significantly since completing the Associate Diploma in Accounting. For example, "Jenny" has progressed to the position of accountant from her previously held clerical position. "Peter" also worked predominantly in a clerical position prior to beginning his Associate Diploma in Accounting. "Peter" then progressed to the position of assistant manager and since finishing the course is now in a management position. Positions held by "Tim" prior to doing the course were that of junior clerk, and accounting officer. He now holds an auditing position. "Helen" was also employed in a clerical position before beginning her SADETAFE Associate Diploma in Accounting. While she is still employed as a clerk, her areas of responsibility have increased.

Hence, while most cast study participants responsibilities had increased, formal promotions were rare.

- ***Career Opportunities Available to SADETAFE Accounting Graduates***

A number of graduates said that there may be career opportunities available for them within their organisations, however none of them were aware of anything specific. Career opportunities had also been complicated by economic circumstances in a number of cases, as discussed previously in this section.

"Tim" said that he did have possible career opportunities available to him, but these were only available interstate. At this point in time however, "Tim" is not interested in an interstate transfer.

He said:

> *At present there are no immediate promotional opportunities. The only alternative for me is to transfer interstate, where a middle level position would be available. The associate diploma would be a definite advantage in this case.*

"Peter" was aware of a career opportunity outside his particular company, but this opportunity was in a completely different area (ie. management consultancy). "Peter" believed that any potential opportunities would be related not only to his qualification, but also to his experience. "Peter" said:

> *My qualification may give me an advantage over someone without the qualification, but who may have the same level of experience.*

"Karen" believed that career opportunities for employees without degrees or higher qualifications were limited within her company. She said, *the crux of it is that I would not have gone much further without further study (she is currently undertaking a Bachelor of Business). It is very difficult to get a promotion above my current position without further study.*

Change in company policy has made it difficult for "Helen" to get transferred within her company. She stated *there is not much potential for inter-branch movement, things are kept fairly stable. People tend to be appointed to jobs, positions aren't internally advertised any more.* Working on a part-time basis was also seen as a barrier to promotion by "Helen". "Helen" is interested in having her hours extended to a full-time basis, however she knows that this is not possible at present, due to the economic environment. Consequently she is not aware of any further career opportunities available to her.

"Helen" is thus in a unique and some what frustrating position. She knows that the Associate Diploma in Accounting would assist her in gaining a promotion. As she said, *if you don't hold an Associate Diploma in the accounting area it becomes a barrier to promotion.* However, because she works part-time, progression into a higher grade is unlikely. As she said *officially working part-time is not seen as a barrier to promotion, however, in practice this does not seem to be the case.*

Hence to case study participants, career opportunities arising from undertaking the SADETAFE Associate Diploma in Accounting appear limited.

▪ *Accounting Graduates' Career Expectations*

A number of accounting graduates felt that their career expectations had not been realised on finishing the SADETAFE Associate Diploma in Accounting. A common experience among graduates was their belief that the Associate Diploma in Accounting would have helped them achieve more. As stated by "Jenny":

> *It wasn't until the end of the course when I was looking through the paper that I realised that bigger, well-known companies wanted CPA or degree qualified people.*

In "Tim's" case, he expected that the Associate Diploma in Accounting would help him achieve a middle level management position in the organisation where he is employed. Unfortunately, to date his career expectations have not been realised within his company. "Tim" did add that because he is aware of available positions in the labour market, he believes that his qualification and experience would be a definite advantage. In this respect he is confident that his career expectations may one day be realised.

"Tim" went on to state that, while he is fairly happy in his current position, he would like to gain a higher position and earn more money. This would only be possible if he was willing take up an interstate transfer. As previously stated he is not willing to move interstate at present.

"Jenny" said that she thought the Associate Diploma in Accounting would probably be more helpful in a small manufacturing company, but she went on to state that even this would probably be unlikely in the current economic/employment environment.

One of the other graduates interviewed also has management level aspirations. However, she is not sure whether the Associate Diploma will help her achieve this. Therefore, she has decided to do a degree to help her move up in the company.

"Helen" stated that upon starting the course she had hoped the SADETAFE Associate Diploma in Accounting would have provided her with more career development opportunities. "Helen" now feels that nothing has really changed in her career. She believes that this is also due to the fact that she is employed on a part-time basis (and to some extent because she is a woman).

While doing the course "Peter" held the expectation that the associate diploma would help him change his place of employment. When he got into the second and third year of his course, he changed his place of employment and thus his expectations grew. Then he held the expectation of advancing further and working in a more specialised area. "Peter" feels that his expectations have been realised, and *now it's a matter of hard work and gaining more on-the-job experience.*

Hence, while some graduates career expectations have been fulfilled, others feel the SADETAFE Associate Diploma in Accounting has not been of significant assistance in fulfilling their career aspirations.

- ***Graduates' Further Study Intentions, Status and Accreditation***

"Jenny" said that she needed a degree to progress within her company as *all employees in top management positions have degrees themselves, you can only get so far without a degree.* Furthermore, *all managers hold degrees, consequently they would like their predecessors to hold the same qualifications.* Therefore "Jenny" has enrolled in a business related degree course. Initially she received 15 points worth of status (ie. around half a years credit). She was then granted further status due to her employment experience. She ended up receiving approximately 27 points worth of status (or nearly ¾ of a years credit).

"Tim" was prompted to do further study by his employer. He has recently enrolled in a computer course at the associate diploma level. He obtained status for his communication subjects and he is currently applying for further status (ie. status for preliminaries or 1 year study equivalent).

"Karen" has also enrolled in a business related degree course at a South Australian university. She received status for approximately four of her SADETAFE Associate Diploma in Accounting subjects. She was also given 6-9 points worth of credit for some of her options. "Karen" continued to study after completing her Associate Diploma in Accounting because when her performance review came up, her employer suggested that they would like it if she did a degree. "Karen" stated, *I was not pushed into it, it was suggested and I was encouraged.*

"Peter" is interested in undertaking further study at the Securities Institute. The problem "Peter" is faced with is that the Institute does not recognise the Associate Diploma in Accounting at the advanced level. Peter would have to do two years at the certificate level before he could go into the advanced level, and then he would have to do a further two years at the advanced level. The advanced level is more appropriate for "Peter" as it offers more specialised subjects which are more relevant to his line of work.

"Jenny" said that she decided to go on and do a degree half way into her Associate Diploma in Accounting. She stated, *a lot of people doing the associate diploma go on and do a degree. Rather than do year 12, they do the associate diploma to move into the degree.* Jenny also feels that employers will not look more favourably at the associate diploma until other institutions such as universities do, or at least until they grant status for the whole of the first year.

Hence, most case study participants intended to undertake further study. However, credit received for SADETAFE studies was inconsistent.

- ***Case Study Participants Employers' Equal Opportunity Policies***

All of the case study participants interviewed said their companies had an equal opportunity policy. One graduate stated that even though there are *no female members of management at present, nor are there any females at the upper level, it is possible for women to move up, but it is a matter of time.*

"Peter" said that one of his company's managers is a woman. *She was promoted due to her experience and her qualifications.* "Peter" went on to say that, *if the person's right it doesn't matter whether they are male or female.* He pointed out that there are also a number of females in management positions in the company's head office.

"Helen" however, said that women in her company are mostly employed in the lower echelons of the company's hierarchy. *A very small number of women are represented in the higher levels of the organisation.* "Helen" attributed this to the fact that most of the part-time staff are women. "Helen" also pointed out that even though the company does have an equal opportunity policy she feels that the policy is not relevant in the area in which she is employed. Nevertheless, *equal opportunity is improving.*

While "Tim's" company also has an equal opportunity policy, there are very few women in management positions. He attributed this to the nature of the company. "Tim" pointed out that there are however, women in management positions in head office (interstate). *There seems to be an acceptable male to female ratio in the higher levels within the organisation, the marketing and sales departments however, have a greater number of males in there ranks, and this is where the majority of staff are employed, there is a disproportionate number of females in this area.*

In summary, all companies have equal opportunity policies.

- ***General Comments***

It was noted that while a number of employees at "Helen's" workplace (she estimated this to be approximately 20 per cent) begin the Associate Diploma in Accounting, *not many of these people actually finish the course.* She seemed to think that this was due to the length of the course. She said *the course becomes very long - sometimes it takes up to 10 years to finish.* Helen suggested that perhaps there could be more entry and exit points to the course.

In general "Peter" feels that there is not much demand for people who have an Associate Diploma in Accounting in South Australia at the present time. He believes there are too many degree qualified people who are unemployed and who are looking for work. Consequently, this puts graduates with Associate Diplomas in Accounting into competition with these people. Nevertheless, "Peter" did state that when the labour market for accounting personnel picks up, employers will recognise the Associate Diploma in Accounting more than they have in the past. *There has been a change in awareness from an employers point of view. They have become more aware.* Furthermore, "Peter" added that the Associate Diploma in Accounting takes time to establish itself and gain recognition.

"Jenny" thought that the course was good, she has also found it more practical than the degree, which she finds more theoretical. She stated, *the associate diploma is more employable on a practical level.*

- ***Conclusions***

The accounting case studies indicate:

- that most case study participants undertook their SADETAFE accounting course to improve their career prospects;
- while the SADETAFE Associate Diploma in Accounting was generally relevant to case study participants' employment, on-the-job training was also important;
- acceptance of the SADETAFE Associate Diploma in Accounting among employers of case study participants varied significantly;
- most SADETAFE accounting graduates are not employed under an industrial award;
- that most firms provided study assistance to case study participants;
- while most case study participants suggested industrial experience was a major factor in their employer's recruitment or promotional decision, their qualifications were also of assistance;
- while most case study participants' responsibilities have increased, formal promotions were rare;
- career opportunities arising from undertaking the SADETAFE Associate Diploma in Accounting appear limited for most case study participants; and
- while some graduates' career expectations have been fulfilled, others feel the SADETAFE Associate Diploma in Accounting has not been of significant assistance in fulfilling their career aspirations.

6.3 Analysis of Case Studies of Graduates from the SADETAFE Associate Diploma in Mechanical Engineering

- ***Background***

Interviews were conducted with five graduates of the Associate Diploma in Mechanical Engineering. Of the graduates interviewed, one was employed by a small state based engineering company, one was employed in a major public organisation, two were employed by major national/international companies involved in the production of defence related equipment and one was employed by a major national, heavy engineering firm.

Actual positions held by graduates interviewed included a senior drafting officer, a drafting officer, two technical officers and a senior subcontractor administrator.

Four of the five graduates were employed on a full-time basis. Only one graduate was employed on a casual basis. Four of the graduates interviewed were male and one was female.

Graduates were employed in companies which varied notably in terms of size, as indicated by employee numbers. Two SADETAFE mechanical engineering graduates were employed in companies with approximately 5-30 employees. The other three mechanical engineering graduates interviewed during the case studies worked in companies employing between 600-2500 people.

Main Reasons for Undertaking Middle Level Studies through SADETAFE

Reasons provided for undertaking the SADETAFE Associate Diploma in Mechanical Engineering varied considerably amongst the mechanical engineering graduates interviewed during the case studies. Reasons given included:

- gaining promotional opportunities;
- improving prospects for career advancement;
- it was a flow on from the apprenticeship course;
- it was a spur of the moment decision;
- getting a better job in the long run;
- improving prospects for career advancement;
- moving on from being a tradesman.

As stated, a number of graduates did the Associate Diploma in Mechanical Engineering because they saw it as a natural progression to their apprenticeships. Comments included:

> *It was at the same college and it was familiar to me.*
>
> *Since I had already done an apprenticeship, I could do the associate diploma on a part-time basis.*

In one particular case, the graduate was influenced by management at his prior place of employment to do the Associate Diploma in Mechanical Engineering. He also personally preferred to undertake the associate diploma rather than a degree because he only wanted to study on a part-time basis and the degree would have taken him too long to complete.

That is, most mechanical engineering case study participants, like the accounting case study participants, undertook their mechanical engineering course to improve their career prospects.

Main Areas of Responsibility

The mechanical engineering graduates who took part in the case studies were asked to list the main tasks their position required them to perform. Areas of responsibility varied significantly among the mechanical engineering graduates who were interviewed. The main tasks graduates said they were required to perform have been organised into the following groups:

Contracting:

- to write tenders;
- negotiate contracts;
- manage contracts and supervise the management of other contracts.

Technical:

- fitting and machining;
- fabrication.

Drafting:

- preparing drawings;
- CAD work;
- design of drawings;
- subsession design;
- design;
- drafting from design;
- working along side the engineering designs component.

Testing Equipment:

- organise testing and equipment related to testing;
- making and the procurement of equipment needed for testing;
- involved in design planning and organisation of testing for equipment.

One graduate of the Associate Diploma in Mechanical Engineering felt that his main areas of responsibility were no longer properly defined compared to when he first started working for the company. As "Justin" (a pseudonym for a case study participant) stated, *they* (his areas of responsibility) *used to be properly defined, now they are not so clear.* "Justin" attributed this to the drafting ranks being abandoned by the company. This has occurred in the last two years. However, because "Justin" is still very competent in drafting and design, the company still uses his skills in this area, although they do not officially recognise this as his area of responsibility.

Mechanical case study participants like the accounting case study participants perform a wide variety of tasks.

- ***Wider Range of Tasks***

Most of the graduates interviewed stated that they are now required to perform a wider range of tasks since completing the SADETAFE Associate Diploma in Mechanical Engineering. For example, "Susan" (another pseudonym) said that she is required to perform a wider range of tasks since completing the course. She is required to attend training sessions and she has taken up more responsibility.

"Mark" in particular felt that he is now required to perform a wider range of tasks. Early in his career with the company "Mark" worked in the drafting area. He is now involved *hands on* in the production area. Within production his tasks involve coming up with assembly techniques, developmental techniques and writing procedures. He was not involved in any of the above when he first started working for the company.

"Justin" is also required to perform a wider range of tasks since completing the Associate Diploma in Mechanical Engineering. "Justin" is now involved in complete design, rather than just partial design. He is now responsible for the organisation of certain tasks, whereas before he was merely acting as an assistant. He did however point out that the increase in his areas of responsibility are also a result of changes in organisational structure. As he stated, *all employees are now required to take on more responsibility.*

In summary, most case study participants now have a wider range of tasks.

- ***Relevance of SADETAFE Studies to Current Position***

The majority of SADETAFE mechanical engineering graduates interviewed stated that the Associate Diploma in Mechanical Engineering was a pre-requisite in obtaining their position. In most instances employers were looking specifically for someone who had done an Associate Diploma in Mechanical Engineering. Typical comments by case study participants included:

> *I would not have got the job without it. If I didn't have the qualification, I could not have applied for the job.....a pre-requisite for employment at the company at that time was an associate diploma and experience. However experience alone would not have got me in. It is a very specialised area.*
>
> *They were taking cadets, and you had to be through part of the course. They specified the associate diploma.*
>
> *Part of the government award stated that employees could not be technical officers (level 2) without the associate diploma.*

This particular graduate went on to state that while the course was a pre-requisite at the time he obtained his position, it no longer was a pre-requisite. Unions within the organisation have been pushing for on-the-job experience to be recognised as a pre-requisite to entry into certain levels, rather than recognising solely qualifications as a pre-requisite.

One graduate believed that the Associate Diploma in Mechanical Engineering helped him obtain his position, even though the position required someone with a degree. "Matthew" (another pseudonym) said that the Associate Diploma in Mechanical Engineering got him in the front door, *then it was based on my performance and ability. But I wouldn't have been in the position unless I had the* *associate diploma*. "Matthew" also emphasised the importance of the practical nature of the course. "Matthew" found this aspect of the course extremely beneficial because he is able to give his clients (especially when he is interstate) advice on any manufacturing and practical problems they may have.

Most of the SADETAFE mechanical engineering graduates felt that the course was relevant to their current position of employment. "Mark" in particular believed the course was relevant to his current position. He stated, *a lot of design calculations couldn't be carried out without this training*.

Another graduate found the Associate Diploma in Mechanical Engineering relevant in a number of different areas. "Susan" stated, *I've got to use different pieces of the course throughout my career, the course provided me with more general relevance*. This *general relevance* was particularly important for "Susan" because she had spent time in a number of different departments during her cadetship. "Susan" also believes that she has learnt a lot through experience during her period of employment with the company. One criticism "Susan" did have regarding the Associate Diploma in Mechanical Engineering was that it did not adequately address the subject of communication (ie. talking in front of large groups). She stated, *if this was taught it could have helped people progress more satisfactorily*.

"Jack" was somewhat ambivalent about the Associate Diploma in Mechanical Engineering. While he did feel that it had provided him with a level of understanding which has helped him in his position, he also felt that his apprenticeship was more relevant to his current position. "Jack" went on to say that there were only a few subjects in the Associate Diploma in Mechanical Engineering which he did not find useful. As he stated, *I am always using little bits of the course... the course also gives you confidence when you finish*.

"John" was the only graduate who felt that the associate diploma was less relevant to his position. He stated, *It is relevant about 40 per cent of the time, at other times it is a matter of common sense*.

Hence, most mechanical engineering case study participants found their studies highly relevant to their position.

▪ *Range and Depth of Tasks Performed by Case Study Participants*

All the graduates interviewed during the case studies said that the course had helped them develop the range and depth of skills required in their positions. "Matthew" definitely found the course helpful in developing the range of skills he requires in his position. It gave him a broad background which he uses *across the board*. It also gave him an understanding of the entire engineering environment.

Areas of the course graduates found most useful included:

- corrosion prevention;
- mechanics;
- mathematics;
- materials;
- the project subjects;
- engineering materials;
- engineering mechanics;
- designing principles.

"Justin" felt that the course had helped him develop the depth of skills required in his position. He stated, *the more you learn, the more you can go into something when doing a job - you don't need to ask someone else as much. Everything you learn helps.*

"Matthew" also said the course helped him in this area. The Associate Diploma in Mechanical Engineering gave him an insight into various aspects of his field. It also gave him an understanding appropriate for the manufacturing environment. "Susan" felt that the course gave her broad ideas and taught her research skills. It taught her where to get her information from.

"Jack" found that on-the-job experience was also an important contributor to performing his tasks in his current position. He said that while the course helped him develop the range and depth of skills he needs, it went hand in hand with experience. As he said, *one is no good without the other.*

Hence, all the case study participants found their course useful in this regard.

- ***Course Acceptance among Employers***

The SADETAFE Associate Diploma in Mechanical Engineering is well accepted by companies and staff, according to case study participants. "Jack" felt that the course is well accepted by the person to whom he reports because he (his boss) has done the same course. As for the managing director of the company "Jack" stated, *he actually preferred someone with the associate diploma.* Furthermore, *he has a total understanding of what the course is about.*

"Mark" also felt that the course was very well accepted by the person to whom he reports. This he said was demonstrated by the level of responsibility the company placed on employees with the, Associate Diploma in Mechanical Engineering. He stated, *they (his employers) look upon it almost as good as the engineering staff.* In fact, *the principal engineer does not believe that there is much difference between engineers and associate diploma holders.* The course is also very well accepted by senior management within the company. This is illustrated by the way, *they (senior management) accept the fact that the technical staff have a wide range of experience, senior management attribute this to the technical basis of the course.* As "Mark" stated, *engineers from university don't have experience, whereas many of the technical staff tend to have the experience of an apprenticeship.*

"Susan" feels that the Associate Diploma in Mechanical Engineering is well accepted by the person to whom she reports because they hold the same qualification. "Susan" went on to say that, *a lot of people I work with have got the certificate, while a lot of people have the associate diploma, a lot of people from the 'old school' don't see much difference between the two. I believe that the associate diploma could do with better recognition than it currently has.*

"Matthew" felt that the course was well recognised by the person to whom he reports, because they said it provided him with a practical background. The company relies significantly on "Matthew" to deal with practical manufacturing based problems. The only real barrier "Matthew" has encountered is at senior management level. They would prefer it if "Matthew" had a degree. This becomes evident at salary review time. He stated, *when it comes to heart to heart discussions about renumeration, the fact that I don't have a degree always seems to come up.*

While the Associate Diploma in Mechanical Engineering is not formally recognised by his company, "Justin" still feels that it is well recognised by the person to whom he reports. As he stated, *even though people at the same level do not have the associate diploma, they do distinguish associate diploma holders from those who haven't got one. It is not a formal recognition, it is just shown by those associated with you everyday.* Senior management in "Justin's" company also recognise the associate diploma but as "Justin" said *it boils down to the fact, that if you're doing your work and you can do it, then that's what they are looking for.*

In summary, case study participants suggest this course is well accepted by employers.

- ***Coverage of Case Study Participants under Industrial Awards***

As discussed in earlier sections of this report (eg. Section 2) and discussed in reference to accounting graduates recognition of an occupation in industrial awards is an important test as to whether an autonomous occupation exists. Case study participants were therefore asked questions concerning the recognition of their SADETAFE Associate Diploma in Mechanical Engineering in industrial awards.

Graduates who were interviewed as part of the case studies were either:

1) Not covered by an industrial award,
I'm not covered by a specific award, as stated by "Matthew".

2) Not sure whether they are covered by an award

3) Not sure which industrial award they are covered under
I think I'm covered by the metal workers award/general engineering award

Only "Mark" could actually name the award under which he was covered and the award in this case was his company's own particular award. The associate diploma was formally recognised in the award.

In summary, it appears likely that most SADETAFE mechanical engineering graduates who participated in the case studies are not employed under an industrial award.

- ***Study Support Provided by Employers to Case Study Participants***

Most of the graduates who took part in the mechanical engineering graduate case studies were not employed at their current place of employment while enrolled in their course. In such cases, graduates said that their prior employers did support them while they were studying. "Matthew's" past employer paid all his fees and gave him time off to attend his lecturers and exams. "Mark" was also working for a different employer while he was studying. This employer paid for "Marks" fees.

Both "Susan" and "Justin's" current employers provided them with study support. "Susan's" employer always provided her with time off to attend lectures and exams for one subject, on the basis that she attend another subject in her own time. The company also refunded her fees if she passed a particular subject. "Justin" only had two subjects to complete when he began working for his employer. He was employed on a traineeship and was given a sponsorship to finish the course. The company also provided him with time off. In his last year, time off was provided so that "Justin" could carry out research for his final year project. ("Justin" pointed out that the company disbanded the trainee programme for associate diploma holders and they also abandoned traineeships for apprentices).

Hence, both past and present employers provided study assistance to case study participants.

- ***Factors Considered by Employers When Recruiting or Promoting Staff***

When considering an employees' career progression, SADETAFE mechanical engineering graduates who participated in the case studies said that their employers considered experience to be one of the most important criteria for career advancement. "Jack" in particular felt that his company placed more value on on-the-job experience than on formal qualifications. As he stated, *while this is not demonstrated formally, it's just a feeling I have.* "Jack" also said that everyone who works for the company has had some prior contact or experience with his employer. Nevertheless, the company does require degree qualified people to carry out the engineering work. "Justin" a technical officer (level 2) or TO2, said that all company employees at levels TO1 and TO2 needed only experience as a pre-requisite, *a tertiary qualification becomes a pre-requisite at the TO3 level.*

Experience is also an important criteria for advancement at "Matthew's" place of employment. He stated that, *as employees in the organisation become more experienced, experience takes over from formal qualifications.* "Matthew" did point out however that the company did hire a significant number of its employees because of their academic achievements.

Both "Susan" and "Mark" said that when considering an employees' career progression, their employers tend to consider both formal qualifications and experience. As "Susan" stated, *in a lot of cases employees do need qualifications, but you do need both (i.e. qualifications and experience). The company is interested in a level where employees are working efficiently.* There are currently a number of important changes taking place at "Susan's" place of employment. One of these changes is the push to formally recognise performance.

When considering an employees' career progression "Mark" said that his company considers both formal qualifications and experience. He said that promotions in the past would not have occurred without an Associate Diploma and experience, *employees without an associate diploma can't get a promotion.*

Hence, while formal qualifications are recognised as being important by employers, on-the-job experience tends to be the most important criteria for career advancement.

- ***Promotions Received by Case Study Participants Since Completing the SADETAFE Associate Diploma in Mechanical Engineering***

Of the five graduates interviewed, only two said that they had experienced a promotion since completing the Associate Diploma in Mechanical Engineering. "Mark" for example was promoted to the position of senior drafting officer from his previous position of drafting officer. He was also given a salary increase.

"Matthew" has been promoted twice since he began working for his organisation. He began his career in the position of graduate engineer, he then moved up to the position of contracts administrator. He is currently senior contracts administrator. He too was given a salary increase as a result of his promotions.

"Susan" was not sure if she had been formally promoted since she began working for her current employer. As she stated, *I probably did experience a promotion when I completed my course.* Having completed her cadetship in the technical area "Susan" then moved up a level and was placed in the position of drafting officer. When considering an employee's career progression "Susan's" employer tends to take pay levels, study and experience, all into consideration.

On completion of his Associate Diploma in Mechanical Engineering, "Justin" moved up from the position of drafting officer into the position of technical officer (level 2). He has not been formally promoted since. He did however work as a TO3 for a period of time, but this new position was never formally recognised. This was due to a promotional freeze which came into effect shortly after his move. While "Justin's" higher duties have since been *dropped*, he is still required to do the same level of work and as he stated *I am not paid for it.* The promotional freeze has affected all employees within the company.

"Jack", on the other hand, said that he has held the same position since he began working for his employer and since he graduated. It is however, important to note that during his period of employment (5 years), "Jack" has travelled extensively. Consequently, his total period of employment with the company has probably been approximately two years. "Jack's" frequent travel may have reduced his promotional opportunities.

During the case study interviews, graduates were also asked if they were working prior to starting their Associate Diploma in Mechanical Engineering. They were also asked what positions they had held during this time. From the information provided it can be concluded that most graduates are now in significantly different positions and have a greater degree of responsibility. For example, prior to beginning the Associate Diploma in Mechanical Engineering "Justin" was employed as a tool maker, he then became a drafting assistant, he is now employed as a technical officer (level 2).

A number of graduates were employed as apprentices prior to beginning the Associate Diploma in Mechanical Engineering and have progressed significantly since completing the course. In fact, "Matthew" has progressed from an apprenticeship position to the position of Senior Subcontractor Administrator.

"Mark" was also employed as an apprentice (ie. fitter and turner) prior to beginning his Associate Diploma in Mechanical Engineering. After completing the course, he progressed to the position of drafting assistant, he is now a senior drafting officer. During his apprenticeship "Jack" worked predominantly in tool room maintenance carrying out special purpose machining work. He is now a technical officer.

"Susan" was the only graduate interviewed who was not employed prior to undertaking the Associate Diploma in Mechanical Engineering.

To conclude, a number of case study participants have been formally promoted. Other participants while not formally promoted have had an increase in their areas of responsibility.

- ***Career Opportunities Available to SADETAFE Mechanical Engineering Graduates***

The majority of mechanical engineering graduates said that possible career opportunities were limited or non existant at present. In a number of cases career opportunities had also been complicated by the restructuring process. "Susan" in particular said that possible career opportunities were very vague at present, largely as a result of the company's policy to reduce staff numbers. "Susan" was also unsure of any career opportunities available to her outside the company. She stated that, *at the moment the whole area is unsure due to the recession. There is especially not much around in the technical and drafting areas at present. It is fairly quite at the moment. A lot is out to contract, the whole area is moving this way.* "Mark" was also not aware of any career opportunities within his company. He, like "Susan" was also not aware of any career opportunities outside his company. As "Mark" stated, *there is an over-supply of draftsmen in the market.*

"Matthew" was the only graduate who was truly optimistic about career opportunities available to him both within and outside his current place of employment. Potential career opportunities in "Matthew's" case were, however, predominantly based on longer term opportunities. As "Matthew" stated, *the next career step within my company would be that of department manager.* This career opportunity would not be possible for at least another three to five years as "Matthew" would first have to gain the necessary experience. He stated *to get to department manager, you need a degree and 15 years related experience.* While "Matthew" does not have a degree it is still not possible for him to move into this position.

"Justin" was caught in a 'catch 22' situation. He said that career opportunities were available to him within his company, but only if he undertook further studies (ie. not necessarily in the engineering area). If "Justin" did chose to study further, he would still be caught up in the company's promotional freeze, but not to the same extent as he is now. "Justin" said that he might be interested in undertaking further study in computing. As he said, *you need computing more than anything else* within the company. "Justin" also said that there is definitely scope for someone with a science degree. Opportunities for trades staff and most of the technical staff are limited within the company, *as it is currently sizing down the number of these employees*. "Justin" summed up the situation in the following way:

> *There use to be promotional opportunities in other divisions, but not any more. The company is getting rid of people, and other divisions don't want to take on a person from another division.*

"Justin" is not aware of any career opportunities available to him outside of the organisation at present. He stated, *in this current economic climate - forget it, there is nothing around.* He continued by stating that opportunities in private industry are aligned more to experience, *the associate diploma gives you an edge but it boils down to experience, only a few places require it as a pre-requisite.*

To conclude, for the majority of case study participants, career opportunities at present are limited or non-existent. This can be attributed to either economic structural change or the downturn in the economy.

- ***Mechanical Engineering Graduates' Career Expectations***

Graduates interviewed during the case studies had mixed feelings regarding their career expectations and what they thought the Associate Diploma in Mechanical Engineering would help them achieve. During her interview, "Susan" said that she did not have any specific expectations while studying, nor did she know what the course would help her achieve. By the end of the course, however, "Susan" said she was feeling a little disappointed, *I thought the associate diploma would have given me a few more opportunities.* In fact, by the end of the course "Susan" had wished she done a degree. The reasoning behind this is that she believed that many more doors could have been opened to her, had she done a degree. As she stated, *there are a lot more opportunities for degree holders.* "Susan" also pointed out that probably 99 per cent of graduates felt this way, and in fact, many of them went on and did the degree. These graduates *got on a lot faster and went further* according to "Susan".

"Justin", on the other hand, did have expectations as to what the Associate Diploma in Mechanical Engineering would help him achieve. He wanted to be involved in design/drafting at a grade he thought would be on a par with the qualifications and experience of a technical officer (level 3). He said that today he is 50 per cent of the way there, while two years ago he was 80 per cent of the way there. This he said had a lot to do with the economic climate and government restructuring moves. His career expectations at present are to progress a bit further, to get more responsibility and to climb the ranks. He feels that the Associate Diploma in Mechanical Engineering will help him achieve this eventually, but it may take a little time. "Justin" is also considering undertaking further study.

At the beginning of his career "Matthew's" only expectation was to change into a different working environment. Having achieved this, he went on to say that his real career expectations started once he joined his present employer. Having had years of experience he was employed by his present employer with the promise of early promotion. He has since achieved this career expectation.

"Jack's" main career expectation was to get a better position, *above that of a fitter.* "Jack" said that he wanted to do something between an engineer and fitter, were he could go out and do the *measuring up.* He said he soon found out that there wasn't much around for a mechanical technician. He was fairly disappointed because he thought there would have been more work in the mechanical technician field. "Jack's" future career plans are to stay with the company for as long as possible *because of the way I am treated and because of the way the company is set up.*

"Mark" was the only graduate whose career expectations were fully realised. He knew that once he had finished his Associate Diploma in Mechanical Engineering he would be promoted to design draftsman, *this I was guaranteed.* "Mark" said his expectations have therefore been realised.

Hence, while some case study participants feel that they have gone some way, if not all the way to realising their expectations, others feel the SADETAFE Associate Diploma in Mechanical Engineering has not been of significant assistance in fulfilling their career aspirations.

▪ *Graduates' Further Study Intentions, Status and Accreditation*

Of the five graduates interviewed during the case studies none were undertaking further studies. A number of case study participants did however express some concern in respect to undertaking further study. This concern was predominantly directed towards undertaking a degree course, at a university.

For example, "Matthew" stated that when he completed the Associate Diploma in Mechanical Engineering he considered undertaking a degree. "Matthew" became hesitant about undertaking further study when he found out that the SADETAFE Associate Diploma in Mechanical Engineering was not recognised as an equivalent to the associate diploma offered by South Australian universities. This would mean that "Matthew" would have had to put in an extra year of study. "Matthew" pointed out that he believes that an associate diploma undertaken at a university can be a stepping stone to a degree, whereas an associate diploma undertaken at TAFE doesn't seem to flow on to any other course, it is more of a final step. As "Matthew" stated, *there is no flow on from TAFE into other areas.*

"Justin" also felt that if he had undertaken his Associate Diploma in Mechanical Engineering at the Levels, he would now obtain more status if he were to undertake an engineering degree. "Justin" believes that a university would only grant him status for part of the first year of the engineering degree, which would mean that "Justin" would still have to complete about three first year subjects. On the other hand, "Justin" said that if he had done the Associate Diploma in Mechanical Engineering at The Levels he would have obtained 100 per cent status for the first year. (ie. from what he can gather).

During the interview, it became obvious that "Susan" was quite concerned about both the image and status of the associate diploma. As she stated:

> *You're starting from scratch when you try to get a university to recognise the associate diploma, you have to fight for status. It gets a bit out of reach for people who have other commitments.*

This deterred "Susan" from undertaking further study. "Susan" felt that people should be able to undertake a degree *without throwing away years of the associate diploma.* In "Susan's" opinion, once a person has completed an associate diploma, they should be given more recognition for it if they choose to study further. "Susan" also felt that the associate diploma should be developed so that it can be added to. As she stated:

> *Someone with the associate diploma should be able to do one more year and get extra credit towards their associate diploma, and work their way up slowly. Make it progressive and break down the barrier between the two areas (i.e. degree and associate diploma).*

"Susan" felt that by incorporating the two courses more closely, this would in turn allow people to work better together. Another interesting point raised by "Susan" was that things are now changing significantly and that *experience is now becoming more of an important factor* in "Susan's" workplace.

In summary, none of the case study participants interviewed had undertaken further study.

▪ *Case Study Participants Employers' Equal Opportunity Policies*

Even though all of the case study participants interviewed said that their companies had an equal opportunity policy the number of females in management positions or in technical areas was limited or non existent. One graduate stated that there had been a female engineer working in the company's head office, but she had since left to work overseas.

The number of women at "Matthew's" place of employment are also limited. He did point out however, that the human resources manager is a female and there are two women in the company's graduate scheme. "Matthew's" company takes on between 14-15 graduates and places them in a three year graduate scheme. During this time the graduates are rotated around different departments on 6-12 month placings. "Justin" also said that there were a number of females scattered around different areas in his company. As he said *there are a number of female managers within the company, there are more in the scientific grades, there are fewer in the engineering grades. In professional engineering there are six or so.*

"Susan" stated that while there were a lot of females in her organisation, there were far fewer in the technical area. "Susan" attributes this to the nature of the course rather than to company policy. There are no females in management positions in "Mark's" place of employment. He did say that there use to be some female engineers.

Hence, while all firms have an equal opportunity policy, the number of females in technical areas is limited or in some cases non-existent.

- ***General Comments***

"Susan" felt that the upgrading of the course from a certificate to an associate diploma was all done very quietly. "Susan" felt that the college should have let people know what it was all about. As she stated *because they did not promote the upgrading, it got around very slowly through word of mouth.* "Susan" went on to say that many people who do the Associate Diploma in Mechanical Engineering go on and do the degree, *this in itself is saying something.* Furthermore, "Susan" felt that:

> *By the time you get to the end of the associate diploma you realise that with a few more extra years (i.e. needed to obtain a degree) it could get you a lot more.*

In "Susan's" opinion, there is a definite barrier between engineering staff, technical staff and tradespeople. She feels that *they should be brought more closely together.*

"Justin" concluded his interview by saying that *more and more of the manufacturing industry is moving away from South Australia. Government departments want to contract out a lot of their work to private contractors who are either based interstate or overseas.* As a result of this, "Justin" said that he would have to consider whether he would do the course again.

- ***Conclusions***

The mechanical engineering case studies indicate:

- most mechanical engineering case study participants like accounting case study participants undertook their course to improve their career prospects;
- most mechanical engineering case study participants found their Associate Diploma in Mechanical Engineering highly relevant to their position;
- case study participants suggest the course is well accepted by employers;
- most SADETAFE mechanical engineering graduates are not employed under an industrial award;
- case study participants were provided with study assistance by both past and present employers;
- while employers of case study participants recognised the importance of formal qualifications, on the whole they tend to believe that on-the-job training is the most important criteria for career advancement;

- while formal qualifications are recognised as being important by employers, on-the-job training tends to be the most important criteria for career advancement;

- while a number of case study participants had experienced formal promotions, others only had an increase in their areas of responsibility;

- a number of case study participants experienced formal promotions. Others while not formally promoted experienced an increase in their areas of responsibility;

- for the majority of case study participants, career opportunities are either limited or non-existent at present;

- a few case study participants felt that they have gone some way, if not all the way to realising their career expectations. Others felt that the SADETAFE Associate Diploma in Mechanical Engineering has not been of significant assistance in fulfilling their career aspirations; and

- while all firms had an equal opportunity policy, the number of females employed in technical areas is limited or in some cases, non-existent.

6.4 Analysis of Case Studies of Gradates from the SADETAFE Diploma in Hospitality Management

- *Background*

Case study interviews were conducted with five graduates from the SADETAFE Diploma in Hospitality Management. One graduate was employed by a private national beverage supply company, two were employed in higher quality hotel/motels, one worked in the wholesale and retail trade, and one was employed by a private state based company involved in the property and business services industry.

Actual positions held by graduates interviewed included a shop supervisor, a silver service waitress, a relief supervisor/table attendant, an office manager and a graduate who said that while he did not have a formal title, he was responsible for carrying out a wide variety of different functions.

Three of the five graduates were employed on a full-time basis. Two graduates were employed on a part-time/casual basis. Two graduates were male and three were female.

Graduates were employed in companies which varied significantly in terms of size as indicated by employee numbers. The majority of SADETAFE hospitality management graduates were employed in companies with approximately 5-40 employees. However, some hospitality management graduates interviewed during the case studies worked in companies employing between 60-900 people.

- *Main Reasons for Undertaking Middle Level Studies through SADETAFE*

Reasons provided for undertaking the SADETAFE Diploma in Hospitality Management varied considerably amongst the hospitality graduates interviewed during the case studies. Reasons given included:

- wanting to become a food and beverage manager;
- gaining promotional opportunities;
- working in an area of interest;
- interest in the hotel industry;
- interest in meeting people;

- improving career prospects;
- moving into a different career;
- wanting to gain self satisfaction;
- wanting an exciting and challenging career.

In summary, most case study participants undertook the course to either move into a different career or to move specifically into the hospitality industry.

■ *Main Areas of Responsibility*

The hospitality graduates who took part in the case studies were asked to list the main tasks their position required them to perform. Areas of responsibility varied significantly among the hospitality graduates who were interviewed. The main tasks graduates said they were required to perform have been organised into the following groups:

Office Management Tasks:

- office & systems management;
- internal accounting;
- resource management;
- advertising;
- marketing.

Waiting Tasks:

- taking orders;
- clearing tables;
- working the cash register;
- working at the coffee & cake bar;
- making drinks.

Supervisory Tasks:

- seeing that all the jobs have been done;
- end of day clean up;
- opening up in the morning;
- handling of money;
- supervising day-to-day running of the business;
- controlling staff;
- enforcing good customer service;
- preparing staff rosters.

General Tasks:

- ordering & book work;
- calculating wage percentages, labour & food costs;
- issuing & stock inventory;
- purchasing;
- accounts payable;
- cost control.

■ *Relevance of SADETAFE Studies to Current Position*

Most SADETAFE hospitality graduates stated that even though the Diploma in Hospitality Management was not a formal pre-requisite in obtaining their position, it did help. "Elizabeth" (a pseudonym) stated:

> *When I applied for the position I was the only applicant who had a qualification. This I believe worked to my advantage.*

"Mary-Anne" (another pseudonym) also stated that the Diploma in Hospitality Management was not a pre-requisite in obtaining her position. She did feel however that it did get her *foot in the door.* During the interview "Mary-Anne" explained that obtaining her position proved to be an arduous task. As she said, *I had to fight all the way.* The company was cautious about hiring her because she held a qualification. This they thought would make her more likely to move on. "Mary-Anne" also attributed this hesitancy to the fact that she was ahead of her time for the company, as she said, *they hadn't quite decided what they were going to do, in respect to becoming a fine* *dining restaurant or not*. A year after "Mary-Anne" was employed, the Diploma in Hospitality Management became a pre-requisite for all staff members in the company's restaurants.

"David's" employers organised that he be interviewed by the company's accountants. Even though the interviewers recognised the broad knowledge base "David" had acquired during his course, they recommended that he be given further training in accounting. They felt that given this training, "David" would be appropriate for the position. "Gary", on the other hand, felt that his industry experience was the major contributor to obtaining his position. He stated that his maturity and experience far outweighed his Diploma in Hospitality Management.

During the interview, case study participants were asked if the Diploma in Hospitality Management was relevant to their current position of employment. "Rosemary", in particular felt that it was relevant to her position as a silver service waitress. "Elizabeth" believed that the course was particularly useful in helping her develop such skills as rostering, customer service and supervising staff.

The course was also extremely relevant to "Mary-Anne's" position. She found the course most useful when dealing with financial aspects of the business. The Diploma in Hospitality Management has also:

- given her a further insight into meeting budgets;
- helped her with setting rosters;
- made her aware of the implications of not getting sufficient turnover;
- made her aware of the problem of wastage;
- made her aware of the relationship between staff;
- made her aware of the possible problems with staff;
- provided her with the tactics of getting people to do things *when they don't want to.*

In addition, "Mary-Anne" felt that the course provided her with a greater degree of refinement compared to non-trained employees. She has learnt *how to do it, as opposed to being told to do it.*

Having specialised in computing and accounting "David" said that he found the accounting side of the Diploma in Hospitality Management very basic. He did however, find subjects such as Business Law, Computing, Communication and People Management to be very useful. "David" summarised the benefit of the Diploma in Hospitality Management as follows:

> *There were many aspects of the course which were very good....it laid a good foundation. The overall content of the course was not superficial, nor was it in great depth, it gave an overall picture.*

An interesting point bought up by "David" during the interview was that *while 70 per cent of the course was related to business management in general, the course could be applied to any business.*

Thus, while most case study participants suggested that the SADETAFE Diploma in Hospitality Management was not a pre-requisite to obtaining their position, it was an advantage. The course was also relevant to case study participants' employment.

- ***Wider Range of Tasks***

All of the graduates who took part in the hospitality management graduate cases studies were not employed in their current place of employment while enrolled in their course. All the graduates found their jobs after completing or within a week of completing their course. It was therefore not appropriate to ask them whether the range of tasks they performed had increased since completing their course. What was revealed however, was that out of the five graduates interviewed, only "David" is now required to perform a wider range of tasks, since he first began working in his current position. "David" mentioned that during this time he has not only gained more responsibility, but his range of tasks have also increased significantly. For example, he is now required to represent the company in local, small claims courts. As he stated, *Business Law gave me an idea about the basics of law and the machinations of law, which have proved useful.*

"Gary" on the other hand, specifically stated that he was not required to perform a wider range of tasks since he began working for the company. He attributed this to the nature of the company. From discussions with "Gary" it became obvious that his employer did not take an active interest in the career progression of his employees.

In summary, all case study participants were not employed in their current positions while enrolled in their course.

- ***Range and Depth of Tasks Performed by Case Study Participants***

The majority of hospitality management graduates interviewed during the case studies felt that the course had provided them with an adequate range and depth of skills needed in their current positions. For example, "Elizabeth" found that the course had helped her develop the range of skills needed in her position. She initially developed the skills needed in her position through such subjects as Customer Relations, Payroll and Supervising Techniques.

"Gary" was another graduate who felt that the course had helped him develop the depth of skills needed in his current position. This was illustrated by the fact that he is one of the few people in the hotel that can do virtually any job. He has a good knowledge of all the departments. (eg. housekeeping), which he learnt as a result of both the course and experience. "Rosemary" also stated that both the range and depth of skills she learnt was sufficient in her position. The Diploma in Hospitality Management has also equipped "Gary" with the range of skills appropriate for his position. The major benefit of the course in his opinion is that it has given him the ability to carry out cost control, purchasing and account procedures. As he said, *It was a good course, but my main problem is my age* (i.e. too old at 40).

Hence, most case study participants found their studies useful in this regard.

- ***Course Acceptance among Employers***

Of the five hospitality management graduates interviewed during the case studies, only a few felt that the course was well accepted by either the person to whom they report or by senior management in their organisation. Both "Rosemary" and "Mary-Anne" for example, felt that the course was well accepted by the people to whom they report.

In summary, there was no general consensus among case study participants on this issue.

- ***Coverage of Case Study Participants under Industrial Awards***

As discussed in earlier sections of this report (e.g. Section 2) recognition of an occupation in industrial awards is an important test as to whether an autonomous occupation exists from vocational training. Case study participants were therefore asked questions concerning the recognition of their SADETAFE Diploma in Hospitality Management in industrial awards.

The hospitality management graduates who were interviewed as part of the case studies were either:

1) Not covered by an industrial award

2) Not sure whether they are covered by an award, *I think it may be the shop assistants award* said "Elizabeth"

Amongst the five case study participants only "Rosemary" and "Mary-Anne" could actually name the industrial award under which they were covered. The two graduates said that they were covered by the Liquor Trades Award and the Retail Hospitality Award respectively.

Hence, it appears likely that most SADETAFE hospitality management graduates are not employed under an industrial award.

- ***Study Support Provided by Employers to Case Study Participants***

All hospitality management graduates were not employed in their current positions while enrolled in their course, consequently none of them received any form of study support.

- ***Factors Considered by Employers When Recruiting or Promoting Staff***

When considering an employees' career progression, several SADETAFE hospitality management graduates who participated in the case studies tended to be of the opinion that their employers placed considerably more importance on experience rather than on formal qualifications. "Elizabeth" in particular, said that when her employers consider an employees' career progression they tend to place a greater degree of emphasis on-the-job experience. "Elizabeth" continued by stating that her employer placed more importance on *how good you are at your job now, they don't care about your past experience* (including qualifications).

While "Gary" also thought that his employer considered experience to be more important than formal qualifications, in reality he doesn't really know what his employer's thoughts are on this. From discussions with "Gary" it seemed evident that his employer does not place much importance on formal qualifications, because as "Gary" said, *they do not even know I have the qualification.*

In contrast a number of hospitality management graduates mentioned that, during their interviews their employers placed a significant degree of importance on their qualifications. A common experience amongst graduates was that experience tended to take on a more significant role during their period of employment. For example, "David" said that while his employer placed significant importance on his qualification when employing him, during the course of his employment his experience has taken on more significance. As stated by "David",

> *When I got the job I had no experience in this area, but I had the experience of the course. It provided me with a good footing to get in, but now it's a combination of both.*

Discussions with hospitality management graduates highlighted the fact that even though qualifications may initially be helpful in obtaining a position, the need to acquire experience on-the-job becomes both inevitable and essential. "Rosemary" certainly felt that this was the case. She stated that whereas experience and study were both helpful, *you need to build up your experience after you've finished studying.* "Mary-Anne" also saw the Diploma in Hospitality Management as a starting point but as she stated, *once your in a position more emphasis is placed on experience.*

To conclude, it appears likely that formal qualifications may be of some assistance in gaining a position or when being promoted, in the long-run however, most employers place more importance on experience.

- ***Promotions Received by Case Study Participants Since Completing the SADETAFE Diploma in Hospitality Management***

Once again, because all the graduates interviewed had already completed the Diploma in Hospitality Management before obtaining employment with their respective employers, the question of promotion since completing their course was irrelevant. Thus, it was more relevant to ascertain whether they had experienced a promotion/s since they began working for their current employers. Of the five case study graduates interviewed, none had experienced a promotion since they began working for their organisation. Only "David's" position had changed somewhat since he first began working for the company. He said that he had not been promoted within the company since he started, *as far as a title is concerned*. He did however give the impression that his position had become more of a challenge over time. Conversely, "Gary" was quite adamant that he had in fact experienced a demotion rather than a promotion.

During the case study interview, graduates were also asked if they were working prior to starting their Diploma in Hospitality Management. They were also asked what positions they had held during this time. From the information provided it can be reasonably concluded that while a few graduates are now in significantly different positions and have a greater degree of responsibility since completing their course, in the majority of cases it is very difficult to determine whether the graduate has in fact experienced an increase in his/her responsibility or whether he/she has a more challenging career.

In one instance the graduate was not employed prior to beginning the Diploma in Hospitality Management. On completion of the course the graduate successfully obtained a position as a relief supervisor/waitress. "David" had not worked for six months prior to beginning the course. During his course, he worked in at least half a dozen different places. Amongst his positions was that of duty manager at an Adelaide hotel.

"Elizabeth" was employed as a pantry hand in the catering section of a hospital prior to beginning the Associate Diploma in Hospitality Management, she is now a shop supervisor. "Rosemary" was also employed prior to beginning the Associate Diploma in Hospitality Management, she worked part-time in the retail industry, she now works on a part-time basis as a silver service waitress.

"Gary" was self-employed in the tourism industry prior to beginning the course. During the course he was employed on a part-time basis. He was a restaurant manager/bar manager at a local hotel, and he was also a night auditor at another higher quality motel.

- ***Career Opportunities Available to SADETAFE Hospitality Management Graduates***

Four of the five hospitality graduates interviewed said that possible career opportunities with their present employers was highly unlikely or non existent. "Elizabeth" in particular said that there was no potential for career progression within the company. The only scope for opportunity known to "Elizabeth" was in the company's head office located interstate, and even this was doubtful.

Career opportunities for both "Rosemary" and "Mary-Anne" within their current place of employment was also highly unlikely at present. Obstacles facing the two girls include, the company "Rosemary" is working for is in receivership. Secondly, it is highly unlikely that "Mary-Anne" will have her hours extended to a full-time position. As she stated, *things are very slow at the moment*. "Gary" also said that he was not aware of any career opportunities available to him within his current place of employment.

Quite ironically, of all the hospitality graduates interviewed, "David" is the only graduate who has possible career opportunities available to him within his company, *due to the company's rapid expansion rate*. This is ironic because "David" is the only graduate who is not employed in the hospitality industry.

A number of graduates pointed out that career opportunities available to graduates are very limited in South Australia. The only places which could offer graduates possible career opportunities are South Australia's four and five star hotels. Comments included,

> *Career opportunities for hospitality graduates are limited. Opportunities are only available if you're working for a big hotel chain, and even then it is subject to positions being available.*
>
> *Career opportunities outside the company seem to be with five star hotels. Opportunities are very limited elsewhere. Owners are scared of people who know too much.*
>
> *Places of employment which could offer opportunity are Adelaide's four & five star hotels. A lot of positions also require night work which I would rather not do. In large hotels the possibilities are endless (e.g. cross training). Owners of local hotels are threatened by people with diplomas, because they are family owned businesses.*
>
> *If you want to stay in the industry, you must stay with the big hotel chains, and they tend to adopt a youth policy.*

Other possible barriers to career opportunities in the hospitality industry mentioned by graduates included:

> *There is not a lot available in South Australia, there is more available interstate.*
>
> *I don't have enough experience to move into a supervisory/management position. I am too young for a management position, but I am too old for training.*
>
> *A lot also depends on who you know.*
>
> *A lot of it has got to do with being at the right place at the right time. I feel like I'm going backwards instead of going forward.*

An alternative career path suggested by "David" was for graduates to buy their own business. This alternative however, tends to be out of reach for most graduates.

Hence, to case study participants, career opportunities arising from undertaking the SADETAFE Diploma in Hospitality Management appear limited.

- ***Hospitality Management Graduates' Career Expectations***

A number of hospitality management graduates felt that their career expectations had not been fully realised on finishing the SADETAFE Diploma in Hospitality Management. A common criticism among graduates was they thought the Diploma in Hospitality Management would have helped them achieve far more than it had. For example, "Elizabeth" expected to walk out of her course in to a lower management position, in a five star hotel. She presumed that she would get a semi-prestigious job, employed perhaps in a supervisory role. *Her career expectations have not been realised*. "Elizabeth" has no career aspirations at present. She does not think that she will ever get the job that she wants. She attributes this to Adelaide's small population, the limited number of five star hotels in Adelaide, and also to the fact that she is a woman.

"Gary" also had *very big* expectations when he started the course. As he stated, his expectations were *very high*. This is why he did the Diploma in Hospitality Management in the first place. On completion of the course however, he realised that he could have got his current position without the Diploma in Hospitality Management. In summary, "Gary" believed that the Diploma in Hospitality Management would have secured him better promotional opportunities and provided him with a better chance at career progression. *In his opinion this has not been achieved*. Nevertheless, "Gary" is still interested in obtaining a management position, in the food and beverage area.

"Rosemary" is also looking for a career change. In her case, she is looking to move out of the food and beverage area in South Australia and into the housekeeping area.

"Mary-Anne" thought the Diploma in Hospitality Management would have provided her with a good opportunity to get a job. As she stated, *people always need to eat*. Her expectations were half met. While she never considered that she would be a waitress, *she is nevertheless working*. In this respect she has met one of her goals. "Mary-Anne" also indicated that she would like to move into a new area, *sometimes I would like to have a front office position.*

"David's" expectations when he began the course were to get a management position in the industry, to be able to travel and have a structured career path. Even though this initial expectation did not eventuate, he was still pleased with what the Diploma in Hospitality Management helped him achieve. That is, "David" has successfully accomplished part of his original objective of getting into a career which is well paid and shows promise for the future, despite the fact that it is not in the hospitality industry. Future career aspirations for "David" include one day getting into the hospitality industry, but as he stated, *only as an owner/manager.*

In summary, most case study participants feel that their career expectations have not been fulfilled as a result of undertaking the SADETAFE Diploma in Hospitality Management.

- ***Graduates' Further Study Intentions, Status and Accreditation***

Two of the five hospitality graduates interviewed said that they may be interested in pursuing further study. "Gary" in particular is interested in undertaking further study because he feels that,

Any career opportunities outside the company would not be related to the course, the course won't have any bearing on job opportunities. I would be better off if I had a degree, not necessarily in the hospitality industry (eg. Bachelor Business).

For this reason "Gary" is hoping to upgrade his Diploma in Hospitality Management to a degree by undertaking the Bachelor of Business (Hospitality) at the University of South Australia (Underdale Campus). He stated that he would only have six subjects to finish or an extra year of study.

"David" also mentioned the Bachelor of Business (Hospitality). He said this course would be offered by the University of South Australia (Underdale Campus), beginning next year. "David" believes that the course is only one year full-time for TAFE graduates. "David" felt that the course would enhance his career prospects if he decided to do it. However, he was rather hesitant about undertaking further study because he did not think that he would be granted much status by the university for the subjects he did at TAFE. As he stated, *universities tend to look down on TAFE graduates and at the image of TAFE courses*. In addition, he said that, *I though it was a good course, but the academic status is inadequate.*

Hence, only a few case study participants may be interested in pursuing further study.

- ***Case Study Participants Employers' Equal Opportunity Policies***

When asked about equal opportunity policies in their place of employment, graduates indicated that even though all their employers have an equal opportunity policy, in practice the hospitality industry as a whole still tends to be male dominated, especially in the food and beverage area. Men are also inclined to obtain the *challenging positions*, whereas women are placed in supervisory positions which are less demanding. "Elizabeth's" employer does have an equal opportunity policy. As she stated,

> *The company previously had a number of other shops, these were all run by women. They had six female supervisors, a female manager, a female company secretary etc. The company has since closed down all but one of their outlets, and has appointed a male manager.*

Experience and knowledge of the hospitality industry has led "Elizabeth" to believe that women in the industry tend to have, *supervisory roles and restaurant jobs where they have to look sexy*. Men on the other hand, *get the management positions, they control the book work and all the figure work, they get the challenging positions*". "Rosemary" was also of the opinion that males generally tend to dominate the hospitality industry. She estimated that there was a 1:4 female to male ratio, especially in the food and beverage area. Females on the other hand, tend to dominate in the housekeeping area.

Both "David" and "Mary-Anne" pointed out that their employer's had an equal opportunity policy. While there were no female staff members in management positions in "David's" place of employment, there were two females and one male in supervisory positions in "Mary-Anne's" organisation. "Gary" on the other hand made no comment regarding equal opportunity in his organisation.

Thus, in theory all employers have an equal opportunity policy, in practice men tend to dominate the hospitality industry.

- ***Interstate/Overseas Employment Experiences by Hospitality Graduates***

"Elizabeth" took part in the college's industry placement programme. She was employed in a five star hotel in Scotland for six months. While she did enjoy the experience, (primarily because she was in a different country), she did point out that she worked between 70-80 hours a week and was paid a ridiculous wage.

While "David" did not personally take part in the industry placement program he did know of a lot of students who used the program to get placed. He stated, *the college backs you, while you make the contact*. Students could either chose to take part in the industry placement program or take status. As "David" stated, *if you got enough experience you could qualify for status. You either take a placement or you take status*. Discussions with fellow graduates who went through the placement program contributed to "David's" cynical opinion of the placement scheme. As he stated,

> *They get graduates into the industry whether it is in SA, interstate or overseas, then they are paid a nominal wage and are made to work 70-80 hours a week. The students are exploited and disappointed and a lot of them eventually end up dropping out.*

"David" however, believes that the college has recently tightened up on the industry placement program.

Other graduates who found work interstate and overseas included "Rosemary" and "Gary". "Rosemary" worked at a five star hotel in London for five months. She then returned to Adelaide and found employment as an assistant supervisor at a five star hotel. She worked in this position for 18 months, before heading off for a further stint in Europe. "Rosemary" believes that overseas experience is very highly regarded by local operators. As she said, *perhaps this is a necessary stepping stone to management positions in five star hotels in Adelaide*. "Gary" on the other hand, went interstate out of necessity. He said that he found it easier to get work interstate (Sydney). Additional comments made by "Gary" regarding his interstate experience included,

> *Young people in Sydney don't stick around, there is not a lot of stability, they are more transient. In Adelaide employees tend to stay on a more permanent basis.*

This can be attributed to the fact that positions in Adelaide are far and fewer between than in Sydney. Consequently once they obtain a position, employees tend to remain in them. Potential for career movement is therefore far greater in Sydney.

After "David" had completed his Diploma in Hospitality Management he considered moving interstate to find employment in the hospitality industry. In fact, it was a consideration up until the last week of his course. He was then offered a position at his present place of employment.

Hence, most cast study participants had worked in the hospitality industry either interstate or overseas.

- *General Comments*

A general criticism of the Diploma in Hospitality Management made by a number of graduates was that the course misled students to believe that they would become managers on completion of the course. Comments by graduates included,

> *They tell you that you walk out of the course as a manager, you finish with a managers hat. This is not reality. It's not like that. The whole time you are taught how to manage a place.*
>
> *Students need more training in lower skill areas.....The course is teaching students to become potential managers, this is unrealistic. People left the course because they realised that they weren't going to get anywhere with it. They were not getting what they wanted out of the course.*
>
> *Throughout the course students were told that they would get a management/supervisory position, particularly in five star hotels. In reality, when graduates do find employment in the industry they are used for their silver service skills. Companies tend to disregard all the theory they've been taught.*
>
> *People think they come out of the course to become a manager.*
>
> *The course was interesting, but it was misleading. It led students to believe that there were management positions out there in hotels when they finished - there wasn't!.*

A number of graduates also regarded their age as a barrier to either finding employment or for potential career opportunities. "Gary" in particular felt that his age (over 35 years) and experience were a major barrier in gaining employment and for changing his place of employment. "Gary" stated, *it is a very frightened industry, they don't want to employ people with skills and expertise. General Manager's may feel that they won't be needed, that employees know more than them.* Unfortunately, "Gary" is not terribly optimistic at present. He does not see the Diploma in Hospitality Management getting him anywhere quickly, but he also attributed this to the company he worked for. "Gary" does not see any external opportunities for progression either. As he said, *it is a very frightened industry.* Employers are concerned that their employees may not be able to be retrained to their way of operating. In summary, "Gary" said *while their is work out there, it means compromising what I initially had planned.*

"Mary-Anne" also felt her age was becoming a barrier to her career progression within the hospitality industry. At only 22/23 years of age she felt that she may be getting to old to really progress in the industry. Her problem is that she thinks she is too young for a management position, but she is too old to train. Ironically, "Mary-Anne" felt that she started the course when she was too young (at 16 years of age). As a result she did not get as much out of the course as she could have. Because of her age, she took a year off and worked in a fast food restaurant. She said she learnt more at the fast food restaurant than she learnt at college. This she attributed to their highly efficient and effective training system. As she stated, *they had systems for everything* (e.g. wastage etc). Whereas at college she received a technical understanding, (e.g. book work etc). Having completed the course, "Mary-Anne" said that she felt that the course had been designed for older, more experienced people. However, even the older students found it difficult to gain employment after they graduated, age was a barrier for them as well.

The economic recession has had a major impact on the possible opportunities available to graduates. In one particular case, the graduate had finished the Diploma in Hospitality Management just as the recession set in. As a result, there was not much available when she finished.

Prior to obtaining his current position, "David" was constantly looking around for employment opportunities in the hospitality industry. In "David's" view, career opportunities in South Australia, at present, are very dismal. As he stated, *there has been a turn down in trade within the hospitality industry. It is not a terribly good area at this time.* "David" attributes this downturn to the following factors, government legislation such as the .05 alcohol limit, and the economy. As he stated, *these have killed the industry. A lot of pubs are going down, the last 6 months have been the worse.*

Other general comments made by graduates during case study interviews, included the following,

> *I thought that the teaching methods could be improved, they need to get back into the industry.*
>
> *The college had 'hyped' up the course, I knew that experience was necessary. Too many graduates had unrealistic expectations and this had soured the industry.*
>
> *The course could have been done in two years instead of the three. It was stretched out, and things were done over and over again.*

- **Conclusions**

The hospitality management case studies indicate:

- most cast study participants undertook the course to either move into a different career or to move specifically into the hospitality industry;
- while most cast study participants suggested that the SADETAFE Diploma in Hospitality Management was not a pre-requisite to obtaining their position, it was an advantage;
- most case study participants found the Diploma in Hospitality Management useful in helping them develop the range and depth of skills required in their positions;
- most SADETAFE hospitality management graduates are not employed under an industrial award;
- while formal qualifications may be of some assistance in gaining employment and assisting in promotional opportunities, in the long-run however most employers place more importance on experience;
- none of the case study participants had experienced a formal promotion since they began working for their respective employers;
- to case study participants, career opportunities arising from undertaking the SADETAFE Diploma in Hospitality Management appear limited;
- most cast study participants feel that their career expectations have not been fulfilled as a result of undertaking the SADETAFE Diploma in Hospitality Management;
- in theory all employers have an equal opportunity policy, in practice men tend to dominate the hospitality industry; and
- most case study participants had worked in the hospitality industry either interstate or overseas, voluntarily or out of necessity.

6.5 Some Conclusions Concerning the Outcomes of the Case Studies

The case studies, considered as a group, indicate:

- in general most case study participants undertook their course of study to either improve their career prospects or to change their career paths;
- while the Associate Diploma in Accounting and the Diploma in Hospitality Management were not, in most cases, a pre-requisite for employment, they did assist case study participants in obtaining their positions. On the other hand, the Associate Diploma in Mechanical Engineering was a pre-requisite for the majority of case study participants.
- acceptance of the three target SADETAFE courses among employers of case study participants varied significantly;
- most SADETAFE case study participants are not employed under an industrial award;
- while formal qualifications are recognised as being important by employers, on-the-job training tends to be the most important criteria for career advancement;
- formal promotions amongst case study participants varied significantly;
- career opportunities arising from undertaking the three target SADETAFE courses appear limited for most case study participants;
- while some graduates' career expectations have been fulfilled, others feel that the three target SADETAFE courses have not been of significant assistance in fulfilling their career aspirations;
- most case study participants who were employed while undertaking their course were provided with study assistance by their employers;
- while all firms had an equal opportunity policy, men did tend to dominate in particular industries.

Section 7: Some Conclusions Concerning the Future of Middle Level Training

7.1 Introduction

As discussed in the Introduction to this report, this project has four main aims. These aims are:

- To determine whether an autonomous middle level employment base (ie the level for which Associate Diploma and Diploma courses provide vocational training) exists in selected manufacturing and service industries in South Australia.
- To identify recent trends in this employment base in South Australia and develop projections for the future.
- To examine related trends in middle level occupations and the implications for middle level training (eg the effects of award restructuring).
- To discuss the future of middle level training and review the administration of middle level training.

Occupations where a detailed analysis of recent employment trends and the future outlook has been provided include those occupations broadly covered by the following three South Australian Department of Employment and Technical and Further Education courses:

- the Associate Diploma in Accounting;
- the Associate Diploma in Mechanical Engineering; and
- the Diploma in Hospitality Management.

As stated in previous sections of the report, a significant proportion of the discussion has been based on analysis of relevant publicly available data, and secondary evidence arising from the literature survey. In addition primary evidence has been gathered from surveys of selected industries as well as surveys of the labour market experiences of graduates from the target SADETAFE courses and case studies of the career development of selected graduates from the three target SADETAFE courses.

This section of the report offers some conclusions, based on the evidence discussed in earlier sections of this report, on the extent of the employment base available to persons undertaking middle level training through TAFE, likely future trends in this employment base and the implications for middle level training and its administration arising from the preceding analysis

7.2 Does an Autonomous Employment Base Exist for Persons With Middle Level Training in South Australia?

The existence, or lack of existence, of an autonomous employment base for persons with middle level training can be tested in a variety of ways. Relevant questions include:

- Are occupations which require middle level training via TAFE recognised in a consistent fashion in official nomenclature?
- Are occupations which require middle level training via TAFE adequately defined in relevant industrial awards (including discussion of required middle level training)?

- Is there significant employment in occupations requiring middle level training in South Australia and nationally?

This project has attempted to answer these questions by:

- reference to official Australian Bureau of Statistics official occupational nomenclature (ie the Australian Standard Classification of Occupations (ASCO);
- reference to industrial awards; and
- through analysis of ABS data on employment in middle level occupations.

▪ *Recognition of TAFE Middle Level Training in Official ABS Occupational Nomenclature*

Occupational outlets arising from middle level training are not well defined, in broad terms, in ASCO. While ASCO suggests that middle level training should lead to employment in the paraprofessional major group in ASCO, it is possible to become a paraprofessional with lower level or more advanced vocational training. In addition, some middle level TAFE courses lead to occupational outcomes outside the paraprofessional major group in ASCO. The three target SADETAFE courses which form the focus of analysis in this report exemplify this problem: while the Associate Diploma in Mechanical Engineering seems likely to result in occupational outcomes within the paraprofessional major group in ASCO, this is *not* the case with the other two target courses. The Associate Diploma in Accounting can lead to occupational outcomes as diverse as occupations classified in the professional major group in ASCO to occupations classified in the clerks' major group in ASCO. Moreover, the major likely occupational outcomes arising from undertaking the SADETAFE Diploma in Hospitality Management are classified under the managers and administrators major group in ASCO.

Hence, it seems reasonable to conclude that broad occupational outlets for persons undertaking middle level training in TAFE are not well defined in ASCO.

▪ *Recognition of TAFE Middle Level Training in Industrial Awards*

Prior to award restructuring, occupational outlets arising from middle level training were not well defined in those industrial awards which are relevant in the context of likely occupational outcomes arising from undertaking the target SADETAFE courses.

However, in respect to those occupations for which vocational training is provided by the target DETAFE courses the process of award restructuring, with its emphasis on skills, competencies and training, has tended to consolidate the employment base for Mechanical Engineering Associates and has the potential, once award restructuring is extended to hospitality management awards, to have a similar influence on the hospitality management occupations. Award restructuring appears likely, however, to have only a limited impact on the employment base available to accountants in public practice and is yet to affect the employment base available to accounts clerks in South Australia, as award restructuring has been relatively slow in respect to State Clerks' Awards under which most accounting clerks are employed.

Hence, taking the industrial awards which relate to the target SADETAFE courses as an example, it seems likely that award restructuring will consolidate the employment base available in respect to a significant proportion of occupations arising from TAFE middle level training.

▪ *Employment Data*

Data on *employment* suggests there is a substantial employment base available to paraprofessionals, both in South Australia and nationally. However, a significant proportion of persons who become paraprofessionals do not do so by undertaking middle level training in TAFE. Notwithstanding this caveat, a substantial employment base does exist in respect to those occupations where TAFE does provide middle level training in the Paraprofessional Major Group in ASCO.

Hence, despite the problems involved in defining occupational outlets for middle training in official occupational nomenclature discussed above, in terms of official data, a significant employment base exists for persons both in South Australia and nationally undertaking middle level training through SADETAFE.

7.3 Recent Trends and Likely Trends in the Employment Base Available to Persons Undertaking Middle Level Training through SADETAFE

- *The Micro-Economic Analysis*

Recent and likely trends in the employment base available to persons undertaking middle level training have been discussed from two perspectives in this report:

- First, in terms of overall movements in paraprofessional employment in South Australia and nationally.
- Second, in terms of movements in employment in the occupations which the target SADETAFE middle level courses seem most likely to lead to.

The data available in respect to paraprofessional employment growth suggests there has been significant growth in employment of paraprofessionals both in South Australia and nationally in recent years. Econometric models suggest significant continued growth in employment is likely in this ASCO Major Group both in South Australia and nationally in the next 3-5 years.

However, more disaggregated data in respect to those occupations where TAFE is more likely to provide middle level training presents a somewhat different picture. While employment of persons in this group has grown substantially in South Australia in recent years, this has not been the case at the national level, and econometric models suggest relatively slow growth in employment is likely in respect to those occupations where SADETAFE provides middle level training both in South Australia and nationally over the next 3–5 years.

In respect to the three target SADETAFE courses:

- The extent of the employment base available to persons undertaking the SADETAFE Associate Diploma in Accounting is uncertain, because the occupational outcome(s) arising from this course are uncertain, as previously discussed. However, there has been relatively strong growth in the finance, property and business services industry in South Australia in recent years. The industry seems likely to continue to grow in the next 3–5 years, although not at the same heady rate as in the late 1980s, when the Commonwealth Government largely deregulated Australia's financial markets. Demand for accounting services, in particular, seems likely to continue to increase in South Australia in the next 3–5 years, largely in response to ongoing, pending and anticipated changes in Commonwealth and State legislation. However, the rate of supply of persons completing the SADETAFE Associate Diploma in Accounting is relatively high. Given the recent explosion in enrolments in this course, the supply of graduates from the SADETAFE Associate Diploma in Accounting seems likely to increase markedly. Hence the South Australian labour market for accounting services may become somewhat oversupplied with qualified persons in the next 3–5 years.
- There appears to be an ongoing, reasonably well defined employment base (both in ASCO and in relevant industrial awards) available to persons undertaking the SADETAFE Associate Diploma in Mechanical Engineering. However, the number of persons employed as mechanical engineering associates in South Australia has declined markedly in recent years, according to ABS data. Further, the main industry in which mechanical engineering associates appear likely

to be employed, the manufacturing sector, has grown relatively slowly in recent years in South Australia. Given that South Australia's heavy reliance on the transport equipment industry, which will face significant pressure to restructure in the next 3–5 years, the future prospects for new demand in respect to this occupation are somewhat uncertain. While replacement demand has apparently been relatively high in this occupation in the past, the depressed economic outlook in South Australia seems likely to reduce movement out of this occupation. Supply of mechanical engineering associates (both from SADETAFE and the University of South Australia) is relatively high. However, recent State Government initiatives to encourage updating of manufacturing plant and machinery could enhance demand for mechanical engineering associates.

- The major likely occupational outlets for persons undertaking the Diploma in Hospitality Management appear to be in hospitality management positions, which are well defined in ASCO and industrial awards. The South Australian hospitality industry has grown significantly in recent years, and projections of growth of domestic and international tourism growth suggest the hospitality industry is likely to continue to expand in South Australia. Replacement demand for hospitality management staff is also apparently relatively high in South Australia, while the rate of supply of hospitality management staff from SADETAFE is minimal. However, significant alternative sources of supply of hospitality staff exist. It is also a major question whether the local hospitality industry values formal vocational training in hospitality management at a diploma level, given the fragmented nature of the hospitality industry. In addition, it appears that many international hotels prefer to recruit their hospitality management staff from overseas.

Hence the micro-economic analysis of labour market opportunities still left many questions unanswered in respect to the broader questions as to whether an autonomous, independent, specifically identifiable employment base exists for persons undertaking middle level training through TAFE, especially in respect to the target SADETAFE courses. There questions have been addressed through the surveys of the main industries where SADETAFE graduates from the target courses are employed, the surveys of graduates' labour market experiences since graduating, and the case studies of selected students' career progression since graduating.

▪ *The Industry Surveys*

The three industry surveys which form part of this project have provided primary evidence to augment official data in areas where official data is either not collected, is inappropriate, or is not timely.

The industry survey questionnaires addressed questions such as:

- Are South Australian employers willing to employ SADETAFE graduates form the three target courses?
- Do South Australian employers value their employees' SADETAFE vocational training?
- How do employers regard SADETAFE training vis-a-vis university training?
- Do South Australian employers actively seek persons with TAFE middle level training when recruiting or promoting staff?
- Are South Australian employers willing to use SADETAFE as a training provider in the future in respect to the three target courses?

The survey populations were drawn from the main industries where graduates from the three target SADETAFE courses are generally employed. In selecting the survey population a conscious effort was made to include both public and private sector employers and large and small organisations.

As shown in Table 54 in Section 4, response rates to the industry surveys varied from 26.4 per cent for the hospitality industry survey to 43.3 per cent for the accounting industry survey (adjusted to take account of returns to sender). The response rates to the mechanical engineering and accounting surveys thus meets the general social science benchmark (of a 30 per cent survey response rate) and may be considered as being likely to be reasonably representative of the views of the survey population.

While the response rate to the hospitality industry survey appears relatively low, South Australian hospitality industry sources suggest that surveys of this industry frequently result in response rates as low as 5-10 percent. Against this background, the response rate achieved in this survey is a credible result.

(It should also be noted that survey respondents employed, according to data supplied in the course of the three survey questionnaires, 91560 people. In the context of a small regional economy such as South Australia's, this implies the survey results are very credible, inasmuch as survey respondents provide over 15 per cent of total State employment.)

Considered as a group, what do the three industry surveys suggest?

- The three industry surveys suggest that SADETAFE middle level training is *not* widely recognised in industrial awards.
- The three industry surveys suggest a significant proportion of survey respondents employed persons who had completed one of the three target SADETAFE middle level courses or employed persons who were currently undertaking one of the target courses.
- A significant proportion of survey respondents considered they were 'well informed' or 'partly informed' about the target SADETAFE courses.
- SADETAFE middle level training was generally well regarded by survey respondents vis-a-vis university training.
- Many survey respondents had used SADETAFE vocational training in the past, generally via existing courses. The majority of survey respondents also indicated they would utilise SADETAFE for vocational training in the future.
- Most respondents to the three industry surveys considered the target SADETAFE courses provided 'excellent subject knowledge' or 'good subject knowledge' in existing courses. However, as discussed above, the majority of respondents to the hospitality and mechanical engineering surveys suggested additional training is needed in some (new) areas.
- Opinions varied on the used of specific short courses of specific interest to survey respondents versus use of existing award courses. Respondents to the accounting survey generally preferred the existing concept of an award carrying course. However, the majority of respondents to the hospitality and mechanical engineering industry surveys favoured short courses.

However, notwithstanding the generally positive perceptions of industry survey respondents to SADETAFE middle level training discussed immediately above, the majority of respondents to each survey did not actively seek persons with qualifications from the three target SADETAFE courses when recruiting new staff or promoting staff. Moreover, most survey respondents valued on-the-job experience rather than academic qualifications when recruiting or promoting staff.

▪ *The Graduate Surveys*

As noted in Section 5, obviously it is difficult to make strong *general* conclusions about the overall outcomes of three surveys of graduates from three courses as disparate as the three target

SADETAFE middle level courses under discussion in this paper. Notwithstanding this caveat, the analysis of the graduate surveys has attempted to draw general conclusions concerning questions such as whether SADETAFE graduates from target courses are employed, on what basis they are employed, (ie full-time, part-time or casual), whether their SADETAFE studies assisted them in gaining employment (if employed) and whether graduates' SADETAFE studies are relevant to their work. Graduates' further study intentions have also been an area of interest.

Responses to the graduate survey questionnaires have suggested that:

- The majority of graduates from the three courses are employed (ie unemployment amongst graduates from the target courses is not excessive). Many graduates who commenced their current position after starting their SADETAFE studies, suggested and they would not be employed in their present position without their SADETAFE middle level vocational training.

- Generally speaking, a substantial proportion of graduates from these three SADETAFE courses find their studies relevant to their work, and use a substantial proportion of the knowledge and skills gained from their SADETAFE middle level training in the course of their work.

Many SADETAFE graduates from the three target courses intended to undertake further study, generally at university (although most mechanical engineering graduates intended to study at SADETAFE). It is therefore important that articulation issues be addressed to ensure that SADETAFE students receive credit for their middle level studies in an orderly, consistent fashion, rather than on an ad hoc basis.

▪ *The Graduate Case Studies*

The graduate case studies provided an opportunity for a more detailed analysis of the labour market experiences of persons who graduated from the target SADETAFE courses some time ago. In this way the contribution of SADETAFE middle level training to longer term career developments could be assessed.

Case study participants were selected against a number of criteria. These criteria included:

- willingness to participate in the case studies (all graduates participated on a voluntary basis);

- career progression - candidates for the case studies generally were longer term graduates who had a greater opportunity to develop their careers (although for graduates from the Associate Diploma in Accounting and the Diploma in Hospitality Management this was difficult given the recent developments of these courses); and

- gender balance - a major intention of the case studies was to examine both male and female career progression to compare the contribution of SADETAFE middle level training.

As with the three graduate surveys, it was once again difficult to make definite conclusions regarding the experiences of case study participants. Nevertheless, considered as a group, case study interviews tended to suggest that:

- the most common motivation for most case study participants for undertaking their course of study was to improve their career prospects or to change their career paths;

- while in most cases the target SADETAFE courses were not a pre-requisite to obtaining a position, it did give case study participants an advantage over other applicants;

- while most employers of case study participants recognised the importance of formal qualifications, in the long-run, on-the-job training/experience was seen to be a more important criteria for career advancement;

- career opportunities arising from undertaking the three target SADETAFE courses appear limited for most case study participants;
- the majority of SADETAFE case study participants were not employed under an industrial award;
- while all firms had an equal opportunity policy, men did tend to dominate in particular industries.

7.4 Implications of the Preceding Analysis for Middle Level Training and its Administration

There are a number of issues arising from the preceding analysis. These issues (which are discussed in more detail below) include:

- the nature and extent of the employment base available to persons with middle level training;
- the impact of award restructuring on the employment base available to persons with middle level training;
- differences between public and private sector recognition of middle level training;
- recognition of prior learning;
- possible alternatives to existing modes of middle level training in TAFE;
- articulation between middle level training and universities;
- a possible need for additional exit points from middle level training;
- the marketing of middle level training to employers;
- gender issues arising from the preceding analysis; and
- the need for further research in respect to middle level training.

▪ *The Extent of the Employment Base Available to Persons With Middle Level TAFE Training*

The preceding analysis suggests that a significant employment base exists for persons with middle level training both in South Australia and nationally. Middle level vocational training in TAFE is a common means of entry to the paraprofessional major group in ASCO (notwithstanding the classification difficulties discussed in detail in Section 2) and the employment of paraprofessionals is significant in South Australia and nationally. The graduate surveys discussed in Section 5 also suggests that substantial employment opportunities exist in these occupations for which TAFE middle level training results in occupational outlets outside the Paraprofessional Major Group in ASCO (although it is pertinent to recognise the difficulties arising from generalising from surveys of only a few SADETAFE courses).

As discussed in Section 3, econometric models suggest that only limited growth in employment is likely in middle level occupations for which SADETAFE provides vocational training. (However, award restructuring will influence the growth in this employment base in the next 3–5 years – see the discussion below). In respect to the three target occupations:

- Continued growth seems likely in the employment base available to accounting personnel in the next 3–5 years.

- The employment prospects of mechanical engineering associates will be constrained by tariff cuts but could be enhanced by technological change (see Section 3).
- The prospects for South Australia's hospitality industry in the next 3–5 years appear reasonably positive.

▪ *The Impact of Award Restructuring*

Award restructuring seems likely to further consolidate the employment base available to persons with middle level training. The concept of providing opportunities for career development via vocational training is a central tenet of award restructuring. As industrial awards are being redeveloped around this concept, the vocational training required to work at particular levels within industrial awards is generally being specified in industrial awards.

In this context middle level training has an important role in providing a bridge between entry level vocational training and professional training at universities.

▪ *Public and Private Sector Employment Practices*

Evidence from the three graduate surveys, the industry surveys and the case studies suggests middle level training is widely accepted by the private sector in South Australia.

The position is not so clear in respect to the public sector. In South Australia, under Circular 27 issues by the Commissioner for Public Employment, the Associate Diploma in Accountancy is recognised for entry to accounting positions, and it appears Associate Diplomas are widely recognised for entry into technical or engineering positions.

However, it appears middle level training is more commonly recognised in regard to technical or engineering support functions than to non-technical functions in the Commonwealth Public Service.

In its publication 'Conditions of Entry and Advancement in the Australian Public Service 1991' the Commonwealth Public Service Commission sets out entry standards for a wide variety of occupations, including accountants and technical officers (no hospitality management occupations are mentioned in this publication). While positions having the description of 'technical officer' are generally specified in terms of middle level university/TAFE qualifications (e.g. in terms of completion of Associate Diplomas), entry into accounting positions, in contrast to the position taken by the South Australian Public Service, requires those persons chosen for selection to hold a three year degree, preferably with a degree in accountancy (as shown below).

The Public Service Commission's handbook states:

> *SELECTION ARRANGEMENTS*
>
> *Successful applicants will be appointed, promoted or transferred in order of merit based on the reports of departmental selection committees*
>
> *Except where special arrangements have been approved by the Public Service Commission, the relative suitability of applicants will be determined in the following way:*
>
> *(a)* *Applicants will be expected to possess a degree of three year diploma or equivalent qualifications, preferably with at least a major in Accounting.*
> *Applicants may be required to sit the Graduate Selection Test.*
> *Applicants will be selected for interview on the basis of quality of academic results and relevance of studies, work experience (if any) and any test results.*

> *(b) The relative suitability of applicants will be determined on the basis of selection committee reports and the particular requirements of departments.*
>
> *The selection committee will assess applicants' suitability having regard to such things as the applicants':*
>
> - *knowledge and understanding of accounting principles and issues*
> - *communication skills*
> - *motivation towards a career in the Service.*
>
> *The Committee may also obtain referee reports. However, referee reports may be a sensitive issue for outside applicants and they should be assured that references from current employers will not be sought unless the applicant agrees or there is a high possibility of selection.*
>
> *The normal level for appointment, promotion or transfer is Graduate Administrative Assistant, although outstanding applicants with a minimum of twelve months' relevant work experience and at least a high level Honours result may be appointed, promoted or transferred as Research Officer, Grade 1.*
>
> *The placement of successful applicants in particular departments is determined by the Australian Public Service Recruitment Office in consultation with the recruiting departments, taking into account applicant preferences.*
>
> *Courses of at least four years*

Four year or longer pass degree	*Six salary point*
Three year degree plus second degree	
Three year degree plus approved diploma or award	
Second Class Honours degree	*Eighth salary point*
First Class Honours degree	*Ninth salary point*
Higher degree	*Tenth salary point*

> *Agencies should also refer to the information on starting salaries contained in the Public Service Commission's 'Appointment and Probation Guidelines'.*
>
> *Although normal incremental advancement applies, qualifications completed after appointment, promotions or transfer do not entitle Graduate Administrative Assistants to automatic salary advancement within the Graduate Administrative Assistant salary range.*
>
> *Advancement on completion of the training year will be on merit and reference should be made to Public Service Regulation 112.*[1]

Thus, in summary, while TAFE middle level training is widely recognised in the private sector and increasingly by the south Australian Public Service, the Commonwealth Government has yet to accept middle level training as a basis for entry into non-technical 'professional' positions.

▪ *Recognition of Prior Learning*

As award restructuring becomes more widespread, mechanisms will increasingly need to be established to assess on-the-job learning. It is *not* the purpose of this paper to debate the types of methods to be used in assessing prior learning. However, on-the-job learning will increasingly come to be seen as an integral part of the vocational training system, including credit by TAFE for industrial learning experiences. It is hence important that this issue be given urgent consideration by interested parties to ensure that TAFE has the opportunity to recognise prior learning in a consistent fashion.

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[1] Public Service Commission, *Commonwealth of Australia Gazette 1991* Conditions of Entry and Advancement in the Australian Public Service 1991, pp. 81,82

- ***Possible Alternatives to Existing Middle Level Training in TAFE***

The project profile requested that consideration be given to alternative modes of training. Accordingly, this issue was explicitly addressed in the three industry surveys which form part of this project. While readers are again reminded that drawing general conclusions from more specific analysis relating to particular courses naturally involves at least an element of speculation, it is noteworthy that, in respect to two out of three of the target SADETAFE courses the majority of survey respondents suggested they would prefer shorter courses addressing specific topics of interest to their organisation.

- ***Additional Exit Points/More Full-Time Places***

Case study participants frequently referred to the length of their middle level courses as a substantial barrier to completing their courses on a part-time basis.

Case study participants frequently suggested that the provision of more exit points, with suitable awards, would have been advantageous to them and would have produced more incentive to complete their SADETAFE course. As discussed earlier in this paper (see Section 1 for details) Guthrie and Loveder's paper on this issue reached a similar conclusion.

It is therefore suggested that SADETAFE consider the possibility of providing more exit points from middle level courses.

The sheer number of students undertaking the Associate Diploma in Accounting also suggests that it may be advisable for SADETAFE to provide more full-time places in this course to 'clear the backlog'.

- ***Articulation between TAFE Middle Level Training and University Studies***

The three survey questionnaires of the labour market experiences of graduates from the SADETAFE Associate Diploma in Accounting, the Diploma in Hospitality Management and the Associate Diploma in Mechanical Engineering included a series of questions concerning graduates' future study intentions (see Section 5 for a detailed discussion).

Responses to these survey questions indicate that a considerable proportion of SADETAFE graduates from the three target courses intended to undertake further study, generally at university, (especially younger graduates who had completed Year 12).

A need therefore exists for a mechanism to ensure that all SADETAFE graduates from middle level training receive credit at university for their studies at SADETAFE in a consistent fashion.

This need is even more pressing in the context of award restructuring which has as a central concept the notion of 'career paths', where individuals have the opportunity to move from base levels to more senior positions, partially as a result of undertaking vocational training, while receiving the credit at each stage of their career for previous learning experiences.

- ***Marketing of Middle Level Courses***

The image of middle level training among South Australian employers appears to be a matter for some concern. Respondents to each of the three industry surveys, generally speaking, suggested they had at least a reasonable working knowledge of the target SADETAFE courses.

The majority of respondents to the three industry surveys also commented favourably on the material provided in existing SADETAFE courses, although in some cases (see Section 4 for details) survey respondents suggested additional training is necessary in some subject areas. (Perhaps this issue will be partially resolved by curriculum reviews which are taking place in respect to accounting and mechanical engineering which have involved extensive liaison with South Australian industry.) Survey respondents also commonly stated that SADETAFE middle level training was held in high esteem vis-a-vis university training.

However, notwithstanding the generally positive perceptions of industry survey respondents to SADETAFE middle level training, as noted above the majority of respondents to each survey did not actively seek persons with qualifications from the three target SADETAFE courses when recruiting new staff or promoting staff. Moreover, most survey respondents valued on-the-job experience rather than academic qualifications when recruiting or promoting staff.

This inconsistency suggests that SADETAFE needs to market its middle level training more effectively, so that the South Australian business community comes to better appreciate the benefits of middle level training.

- ***Gender Issues***

The major gender issues which this paper addresses are access to the target SADETAFE courses, successful participation in SADETAFE courses (ie graduating) and exploitative employment practices exposed via the three industry surveys, the three graduate surveys and the graduate case studies.

In terms of *access* to courses, a significant proportion of students in the Associate Diploma in Accounting and the Diploma in Hospitality Management were female. However, there were relatively few females enrolled in the Associate Diploma in Mechanical Engineering (see Section 2 for details).

This suggests that SADETAFE needs to place more emphasis on marketing engineering studies to female students, to ensure they are not precluded, by narrow traditionalist stereotyping attitudes, from the many labour market opportunities that exist in engineering in South Australia.

In terms of *successful participation* in vocational training in SADETAFE, female graduation rates seem broadly in line with enrolments in the Associate Diploma in Accounting and the Diploma in Hospitality Management. However, only two female graduates in Mechanical Engineering were revealed on interrogation of graduation data from Regency College. This again highlights the need to promote female participation in this course.

In terms of *exploitation*, it is noteworthy that a much higher proportion of female employment in the hospitality industry (for all employees in the industry, not just SADETAFE graduates) was on a casual or part-time basis than was the case for male employment. This suggests females are being underemployed in this industry. This was emphasised by case study participants, one of whom suggested that men work as managers, eg by doing accounting, ordering goods etc, while women, at best, get to be supervisors. She said *'Men get the challenging positions'*.

This suggests SADETAFE needs to promote the idea of greater female participation in full-time positions, especially in a management role in its dealings with the hospitality industry.

- ***Future Research***

This paper has addressed a wide variety of issues in relation to middle level training. Along the way, however, various issues have come to light which it has not been possible to address fully in the context of this project. Outstanding issues include:

- detailing the extent of credit transfer available to persons following their middle level training through TAFE at universities;
- assessing the resource implications for TAFE of greater emphasis on middle level courses;
- reviewing the fees payable for undertaking middle level training through TAFE to ensure appropriate cost recovery; and
- certification issues—who should accredit and certificate middle level courses in TAFE?

The National Centre for Vocational Education Research will be addressing some of these issues in the next year. If award restructuring is to succeed, and make a significant contribution to revitalising Australian industry, it is important that these issues be addressed in the near future.

7.5 Some Final Conclusions

Middle level training in TAFE has assumed new importance both in South Australia and nationally in the past decade. Enrolments in middle level TAFE courses have grown remarkably in recent years, and with greater emphasis on providing opportunities for career development under award restructuring, enrolments in middle level TAFE courses seem likely to continue to increase in the next 3–5 years.

This report has suggested there is a substantial employment base available to persons with middle level training in South Australia, and that this employment base will continue to grow in the next 3–5 years despite the fact that the three industry surveys which form part of the project suggest that South Australian employers (in respect to the three target courses) do not actively seek persons with middle level training when recruiting or promoting staff. (Although econometric forecasts suggest employment growth in those occupations for which TAFE provides middle level training will grow relatively slowly in the next 3–5 years, these forecasts were developed prior to award restructuring. In addition, if South Australia's manufacturing sector is to survive it must embrace the opportunities provided by technological change with enthusiasm in the next 3–5 years. A highly skilled workforce is hence required, well versed in modern technology, to facilitate industry's adoption of new technology. This process will be accelerated by state government initiatives in this area.)

As discussed above, in respect to the three SADETAFE courses which have been the focus of much discussion in this report, the prospects for accounting personnel appear reasonable in South Australia in the next 3–5 years, the prospects for mechanical engineering associates are critically dependent on the effects of tariff reductions and the extent to which the South Australian manufacturing sector embraces state-of-the-art technology, and the prospects for the state's hospitality industry appear reasonable. (One major concern in respect to the Diploma in Hospitality Management is that owners of smaller hospitality establishments, survey data suggests, do not hold this course in high esteem, despite the fact that this course has international recognition. SADETAFE needs to address this issue.)

The emergence of TAFE middle level training implies a great need for clarification of articulation practices between SADETAFE and universities. This issue needs to be addressed as a matter of urgency.

Ultimately, while this project has covered new ground in some areas, it has also revealed new issues which need to be addressed. Some of these issues were discussed above. Given the substantial growth in TAFE middle level training in the past decade, this research needs to be undertaken as a matter of urgency, to ensure that both industry and students get the best possible value from middle level vocational training.

Appendix 1

Details of DETAFE (South Australia) Courses under Review

Accounting Associate Diploma

Course aim: To provide an educational program for persons wishing to undertake a wide variety of accounting tasks which require a sound training in accounting procedures. The course also provides training in computerised accounting and in the concepts of mathematics, communication and economics which are essential for the development of skills and discipline involved in modern accounting procedures and business administration.

The Associate Diploma meets the educational requirement for membership of the National Institute of Accountants. It also provides electives for students whose job demands include other responsibilities such as personnel, work study or data processing.

Course length: 864 hours full-time over two years or four years part-time.

Hospitality Management Diploma

Course aims: This course is undertaken by people wishing to work in the hospitality industry in a managerial capacity as a food and beverage manager, front office manager, restaurant manager, and also in an assistant manager position. Students will be given a broad-based package of hospitality knowledge and leading to more specialised and advanced levels.

Course length: Three years full-time of six semesters requiring attendance of 26 hours per week in the early stages to 21 hours per week in the final stages. The final semester (20 weeks) is spent in industry. This course may also be studied on a part-time basis.

Mechanical Engineering Associate Diploma

Course aim: To provide the background of theory and practice enabling graduates to accept technical and administrative responsibility at the paraprofessional level. This includes activities not usually the function of professional engineers, but generally beyond the scope of craftspersons, specialists and production personnel. Possible areas of work include; research, experimental and test laboratories, mechanical, structural, production and numerical design offices or related functions.

Course length: The course is designed to be completed in four years part-time study or two years full-time study.

Appendix 2

ASCO Definitions of Duties of Target Occupations under Discussion

Unit Group 1503

Restaurant and Catering Managing Supervisors

Restaurant and Catering Managing Supervisors plan and organise the provision of meals and beverages in restaurants (including cafeterias, canteens, bistros and clubs), and at public or private functions.

Skill Level

The entry requirement for this unit group is a 3 year associate diploma. Two years on-the-job training is usual. A licence or permit to operate may be required by government authorities.

DUTIES include:

- directing and participating in restaurant and catering operations
- planning menus in consultation with chefs
- purchasing or controlling the purchase of food supplies and monitoring quality at all stages of preparation and presentation
- controlling the selection and training of staff and supervising their work
- maintaining records of stock levels and financial transactions
- determining salaries and prices
- arranging for advertising and handling public relations
- inspecting dining room, kitchen and storage facilities to ensure they meet health requirements and are clean, functional and pleasing in appearance.

Unit Group 1505

Accommodation and Tavern Managing Supervisors

Accommodation and Tavern Managing Supervisors plan and organise the operation of hotel, motel, lodging facilities and grounds at caravan and tourist parks, recreational camp sites and other accommodation establishments.

Skill Level

The entry requirement for this unit group is 1-10 years experience as the supervisor in an accommodation establishment or tavern. A licence or permit to operate may be required by government authorities.

DUTIES include:

- planning, directing and participating in the operations of an accommodation establishment or tavern
- controlling the selection and training of staff and supervising their work in organisational units such as reception, dining room, kitchen or bar
- registering guests, assigning accommodation and showing guests accommodation and recreation facilities

- checking rooms, collecting keys, and determining and collecting payment when guests check out
- maintaining records of financial transactions
- informing guests of local tourist attractions and recreational facilities and attending to queries and complaints lodged by customers
- arranging the cleaning and maintenance of gardens, grounds, buildings and other facilities.

Unit Group 2701

Accountants

Accountants plan and provide accounting and auditing systems and services, and advise individuals and enterprises on accounting matters.

Skill Level

The entry requirement for this unit group is a 3-4 year degree, diploma or business certificate. Special registration may be required for practice as a company auditor, liquidator, tax agent or to audit under certain acts.

DUTIES include:

- collecting, analysing and interpreting information on financial standing, cost structures and trading effectiveness of organisations
- devising, reorganising or establishing budgetary cost control and other accounting systems, including computer-based systems
- conducting audits and investigations
- preparing financial statements and reports for management, shareholders, statutory or other bodies.

Unit Group 3205

Mechanical Engineering Associates and Technicians

Mechanical Engineering Associates and Technicians perform technical support functions ranging in complexity to assist in mechanical engineering research and in the design, manufacture, construction, operation and maintenance of machines, manufacturing equipment, mechanical installations and facilities.

Skill Level

The entry requirement for this unit group is a technician's or post-trade certificate, 2 year associate diploma or TAFE certificate 2 months on-the-job training is usual.

DUTIES include:

- installing new or modified mechanical assemblies, components, hydraulic power systems, machine tools and controls
- studying materials handling methods and recommending changes for cost reduction
- estimating materials costs, quantities and machinery requirements
- assisting mechanical engineers in mechanical equipment, tool and plant design
- performing and/or directing field or laboratory tests
- collecting and analysing data, performing complex computations
- inspecting and maintaining machinery and plant.

Unit Group 5301

Accounting Clerks

Accounting Clerks record financial information for management.

Skill Level

The entry requirement for this unit group is a 2 year certificate and 2-5 years clerical or banking experience. 1-12 months on-the-job training is usual.

DUTIES include:

- recording and compiling summaries of financial transactions, wage and salary deductions and variations, and operation and production costs
- processing loan applications, accounts payable and accounts receivable
- calculating wages and salaries from payroll records, payments received, expenditure and standard costs
- verifying recorded transactions and reporting irregularities to management
- preparing reports of accounting activities, financial statements and customer's credit rating
- compiling and distributing wages and salaries.

Appendix 3

Methodology Used in the Graduate and Employer Survey Questionnaires

Introduction

Both the industry and graduate questionnaires involved mailing out questionnaires to the target populations. Self addressed envelopes were supplied to respondents to improve the response rates to the surveys.

The graduate survey questionnaire comprised 20 questions (there were fifteen questions in each industry survey questionnaire). The questionnaires were, to the maximum extent possible, self coding.

Respondents who did not respond to the first mailout were sent a second questionnaire. Two weeks were allowed to respond to the initial questionnaire, following which time the second questionnaire was forwarded to initial non-respondents.

Response rates were also boosted by follow up by phone.

Industry Survey Questionnaires

There were three separate industry survey questionnaires. The three target industries were the South Australian manufacturing industry, the hospitality industry and the accounting industry. Approximately 400 questionnaires were sent to each industry group.

Graduate Questionnaires

There were three graduate questionnaires, with respect to graduates from the SADETAFE Associate Diploma in Accounting, the Associate Diploma in Mechanical Engineering, and the Diploma in Hospitality Management. It was intended to send out 200 questionnaires to graduates of each course, although actual survey populations depended on the number of persons who completed each course.

For example, it was only possible to identify 111 graduates for the Diploma in Hospitality Management which meant that questionnaires were forwarded to only these 111 graduates.

Computing Aspects

Computing services have been provided by the Statistics Division, TAFE National Centre for Research and Development using EXCEL, a spreadsheet package. Tasks included:

- developing registers of potential respondents/respondents;
- coding questionnaires when returned;
- inputting data;
- developing frequency counts and graphics as requested to assist in analysis of the data.

TAFE NATIONAL CENTRE FOR RESEARCH & DEVELOPMENT LTD

SURVEY OF ACCOUNTING ACTIVITIES IN SOUTH AUSTRALIA

We are seeking your assistance in this survey of organisations who are currently employing people who have either completed, or are completing the Associate Diploma course in Accounting offered by the South Australian Department of Employment and Technical and Further Education (DETAFE). We would appreciate your taking a few minutes of your time to complete this questionnaire and return it by March 27th to the TAFE National Centre for Research and Development Ltd at 252 Kensington Road Leabrook 5068, in the enclosed reply paid envelope.

The purpose of this survey is to determine whether there is a specific and identifiable labour market for people with middle-level TAFE training and to ensure training is appropriate to industry's needs. This survey has the support of the National Institute of Accountants. The information collected in this survey will be held in the strictest confidence. Names will not be recorded against any responses.

To answer the questions, please place a tick in the appropriate box, or write your response in the space provided. Thank you very much for your cooperation. If you would like any further information, please call Janine Cesnich from the TAFE National Centre for Research and Development on 332 7822.

A. YOUR FIRM/ORGANISATION

Please let us know about your organisation by answering the following questions:

1. What is the *main* area of activity of your organisation?
(Please tick one box only.)

Agriculture	☐	01
Mining	☐	02
Manufacturing	☐	03
Electricity, Gas & Water	☐	04
Construction	☐	05
Wholesale, Retail & Trade	☐	06
Transport & Storage	☐	07
Communication/Information Technology	☐	08
Finance, Property & Business Services	☐	09
Public Administration & Defence	☐	10
Community Services	☐	11
Recreation, Personal & Other Services	☐	12

2 How many people does your firm employ? What is their employment status?
(Please write the number of people you employ in the boxes provided.)

	Number of Employees	Employment Status		
		Full time	Part time	Casual
Female	☐☐☐☐	☐☐☐☐	☐☐☐☐	☐☐☐☐
Male	☐☐☐☐	☐☐☐☐	☐☐☐☐	☐☐☐☐
TOTAL	☐☐☐☐	☐☐☐☐	☐☐☐☐	☐☐☐☐

3 In which of the following areas do you employ accounting personnel?
(Please tick appropriate boxes.)

Accounting (general)... ☐ 1
Auditing.. ☐ 2
Financial accounting.. ☐ 3
Management accounting.. ☐ 4
Treasury.. ☐ 5
Taxation.. ☐ 6
Insolvency/financial reconstruction....................................... ☐ 7

4 Do you employ any persons who have *completed* any of the following three courses?
(Please tick one box for each course and write the number of persons you employ with these qualifications in the boxes provided.)

Course Name	Yes	No	Number of Employees Female	Male
Associate Diploma in Accounting (TAFE)	☐	☐	☐☐☐☐	☐☐☐☐
Advanced Certificate in Accounting (TAFE)	☐	☐	☐☐☐☐	☐☐☐☐
Bachelor in Accounting (University)	☐	☐	☐☐☐☐	☐☐☐☐

5 Do you employ any persons who *are currently studying* any of the following courses?
(Please tick one box for each course and write the number of persons you employ with these qualifications in the boxes provided.)

Course name	Yes	No	Number of Employees Female	Male
Associate Diploma in Accounting (TAFE)	☐	☐	☐☐☐☐	☐☐☐☐
Advanced Certificate in Accounting (TAFE)	☐	☐	☐☐☐☐	☐☐☐☐
Bachelor in Accounting (University)	☐	☐	☐☐☐☐	☐☐☐☐

B TRAINING IN ACCOUNTING

6 What TAFE service(s) has your company used?
(Please tick the appropriate box(es).)

	Yes	No
Training provided at a TAFE College through existing courses	☐ 1	☐ 2
Training provided at the Workplace by TAFE staff	☐ 1	☐ 2
TAFE Consultancy (e.g.) Skills analysis project	☐ 1	☐ 2
Tailored training program by TAFE	☐ 1	☐ 2

7 How well informed are you about the following DETAFE courses?
(Please tick one box for each course.)

	Well Informed	Partly Informed	Not Informed
Associate Diploma in Accounting	☐ 1	☐ 2	☐ 3
Certificate in Basic Accounting	☐ 1	☐ 2	☐ 3
Business Practice Certificate	☐ 1	☐ 2	☐ 3

8 From your knowledge of the course, do you think the DETAFE *Associate Diploma in Accounting* adequately equips students for an accounting position in your organisation (ie. provides *appropriately detailed* knowledge of required subject areas)?
(Please tick one box only.)

Excellent subject knowledge .... ☐ 1
Good subject knowledge .... ☐ 2
Reasonable subject knowledge .... ☐ 3
Poor subject knowledge .... ☐ 4

9 Do you feel the DETAFE *Associate Diploma in Accounting* is appropriate to the needs of your industry (e.g. is training needed in *additional* areas to meet your industry's needs)?
(Please tick one box only.)

Yes.................... ☐ 1
No.................... ☐ 2

Comments:______________________________

____

10 Does your organisation have a preference towards shorter, more specific courses on topics of interest to your organisation, or the present broad-based DETAFE Associate Diploma course?
(Please tick one box only.)

Short courses.................... ☐ 1
Associate Diploma courses.................... ☐ 2

Comments:______________________________

11 How well accepted is the Associate Diploma in Accounting course in your industry by comparison with University Degree courses?
(Please tick one box only.)

Well Accepted	Partly Accepted	Not Accepted
☐ 1	☐ 2	☐ 3

Comments:______________________________

____

12 When recruiting accounting staff or promoting your accounting personnel, do you actively seek people holding an Associate Diploma in Accounting?
(Please tick one box only.)

Yes.. ☐ 1

No.. ☐ 2

Comments:______________________________

____

13 Would you consider using DETAFE to train your accounting staff in the future?
(Please tick one box only.)

Yes.. ☐ 1

No.. ☐ 2

Comments:______________________________

____

14 Is the Associate Diploma in Accounting recognised in occupational definitions in the industrial award(s) your organisation operates under?
(Please tick one box only.)

Yes.. ☐ 1

No.. ☐ 2

Not Applicable.. ☐ 3

Comments:______________________________

____

15 Is experience learnt on the job *more important or less important* when choosing a potential job candidate (or in promoting people within your organisation) than their educational qualifications?
(Please tick one box only.)

More important.. ☐ 1

Less important.. ☐ 2

Comments:______________________________

____

Thank you for completing this questionnaire. Please return it to the TAFE National Centre for Research and Development Ltd at 252 Kensington Road Leabrook SA 5068 in the reply paid envelope by 27 March 1992.

TAFE NATIONAL CENTRE FOR RESEARCH & DEVELOPMENT LTD

SURVEY OF MECHANICAL ENGINEERING

We are seeking your assistance in this survey of organisations who are currently employing people who have either completed, or are completing the Associate Diploma course in Mechanical Engineering offered by the South Australian Department of Employment and Technical and Further Education (DETAFE). We would appreciate your taking a few minutes of your time to complete this questionnaire and return it by March 27th to the TAFE National Centre for Research and Development Ltd at 252 Kensington Road Leabrook 5068, in the enclosed reply paid envelope.

The purpose of this survey is to determine whether there is a specific and identifiable labour market for people with middle-level TAFE training and to ensure training is appropriate to industry's needs. The information collected in this survey will be held in the strictest confidence. Names will not be recorded against any responses.

To answer the questions, please place a tick in the appropriate box, or write your response in the space provided. Thank you very much for your cooperation. If you would like any further information, please call Janine Cesnich from the TAFE National Centre for Research and Development on 332 7822.

A. YOUR FIRM/ORGANISATION

Please let us know about your organisation by answering the following questions:

1. What is the *main* area of activity of your organisation?
   (Please tick one box only.)

Agriculture ☐ 01

Mining ☐ 02

Manufacturing ☐ 03

Electricity, Gas & Water ☐ 04

Construction ☐ 05

Wholesale, Retail & Trade ☐ 06

Transport & Storage ☐ 07

Communication/Information Technology ☐ 08

Finance, Property & Business Services ☐ 09

Public Administration & Defence ☐ 10

Community Services ☐ 11

Recreation, Personal & Other Services ☐ 12

2 How many people does your firm employ? What is their employment status? ***(Please write the number of people you employ in the boxes provided.)***

	Number of Employees	Employment Status		
		Full time	Part time	Casual
Female	☐☐☐☐	☐☐☐☐	☐☐☐☐	☐☐☐☐
Male	☐☐☐☐	☐☐☐☐	☐☐☐☐	☐☐☐☐
TOTAL	☐☐☐☐	☐☐☐☐	☐☐☐☐	☐☐☐☐

3 Do you employ any persons who have *completed* any of the following three courses? ***(Please tick one box for each course and write the number of persons you employ with these qualifications in the boxes provided.)***

			Number of Employees	
Course Name	Yes	No	Female	Male
Associate Diploma in Mechanical Engineering (TAFE)	☐	☐	☐☐☐☐	☐☐☐☐
Advanced Certificate in Mechanical Engineering (TAFE)	☐	☐	☐☐☐☐	☐☐☐☐
Bachelor in Mechanical Engineering (University)	☐	☐	☐☐☐☐	☐☐☐☐

4 Do you employ any persons who *are currently studying* any of the following courses? ***(Please tick one box for each course and write the number of persons you employ with these qualifications in the boxes provided.)***

			Number of Employees	
Course name	Yes	No	Female	Male
Associate Diploma in Mechanical Engineering (TAFE)	☐	☐	☐☐☐☐	☐☐☐☐
Bachelor in Mechanical Engineering (University)	☐	☐	☐☐☐☐	☐☐☐☐

5 What TAFE service(s) has your company used?
(Please tick the appropriate box(es).)

	Yes	No
Training provided at a TAFE College through existing courses	☐ 1	☐ 2
Training provided at the Workplace by TAFE staff	☐ 1	☐ 2
TAFE Consultancy (e.g.) Skills analysis project	☐ 1	☐ 2
Tailored training program by TAFE	☐ 1	☐ 2

6 How well informed are you about the following TAFE courses?
(Please tick one box for each course.)

	Well Informed	Partly Informed	Not Informed
Associate Diploma in Mechanical Engineering	☐ 1	☐ 2	☐ 3
Advanced Certificate in Basic Mechanical Engineering	☐ 1	☐ 2	☐ 3

7 From your knowledge of the course, do you think the TAFE *Associate Diploma in Mechanical Engineering* adequately equips students for a position in your organisation (i.e. provides *appropriately detailed* knowledge of required subject areas)?
(Please tick one box only.)

Excellent subject knowledge .... ☐ 1
Good subject knowledge .... ☐ 2
Reasonable subject knowledge .... ☐ 3
Poor subject knowledge .... ☐ 4

8 Do you feel the TAFE *Associate Diploma in Mechanical Engineering* is appropriate to the needs of your industry (e.g. is training needed in *additional* areas to meet your industry's needs)?
(Please tick one box only.)

Yes .... ☐ 1
No .... ☐ 2

Comments:______________________________

____

9 Does your organisation have a preference towards shorter, more specific courses on topics of interest to your organisation, or the present broad-based TAFE Associate Diploma course?
(Please tick one box only.)

Short courses .... ☐ 1
Associate Diploma courses .... ☐ 2

Comments:______________________________

____

10 How well accepted is the Associate Diploma in Mechanical Engineering course in your industry by comparison with University Degree courses? ***(Please tick one box only.)***

Well Accepted	Partly Accepted	Not Accepted
☐ 1	☐ 2	☐ 3

Comments:____

____

11 When recruiting engineering staff or promoting your engineering personnel, do you actively seek people holding an Associate Diploma in Mechanical Engineering? ***(Please tick one box only.)***

Yes.. ☐ 1
No... ☐ 2

Comments:____

____

12 Would you consider using TAFE to train your mechanical engineering staff in the future? ***(Please tick one box only.)***

Yes.. ☐ 1
No... ☐ 2

Comments:____

____

13 Is the Associate Diploma in Mechanical Engineering recognised in occupational definitions in the industrial award(s) your organisation operates under? ***(Please tick one box only.)***

Yes.. ☐ 1
No... ☐ 2
Not Applicable.. ☐ 3

Comments:____

____

14 Is experience learnt on the job *more important or less important* when choosing a potential job candidate (or in promoting people within your organisation) than their educational qualifications? ***(Please tick one box only.)***

More important... ☐ 1
Less important.. ☐ 2

Comments:____

____

Thank you for completing this questionnaire. Please return it to the TAFE National Centre for Research and Development Ltd at 252 Kensington Road Leabrook SA 5068 in the reply-paid envelope by 27 March 1992.

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TAFE NATIONAL CENTRE FOR RESEARCH & DEVELOPMENT LTD

SURVEY OF HOSPITALITY ACTIVITIES IN SOUTH AUSTRALIA

We are seeking your assistance in this survey of organisations who are currently employing people who have either completed, or are completing the Diploma course in Hospitality offered by the Department of Employment and Technical and Further Education (DETAFE). We would appreciate your taking a few minutes of your time to complete this questionnaire and return it by March 27th to the TAFE National Centre for Research and Development Ltd at 252 Kensington Road Leabrook 5068, in the enclosed reply paid envelope.

The purpose of this survey is to determine whether there is a specific and identifiable labour market for people with middle-level TAFE training and to ensure training is appropriate to industry's needs. This survey has the support of the Hotels and Hospitality Industry Association. The information collected in this survey will be held in the strictest confidence. Names will not be recorded against any responses.

To answer the questions, please place a tick in the appropriate box, or write your response in the space provided. Thank you very much for your cooperation. If you would like any further information, please call Janine Cesnich from the TAFE National Centre for Research and Development on 332 7822.

A. YOUR FIRM/ORGANISATION

Please let us know about your organisation by answering the following questions:

1. What is the *main* area of activity of your organisation? ***(Please tick one box only.)***

Agriculture .... ☐ 01
Mining .... ☐ 02
Manufacturing .... ☐ 03
Electricity, Gas & Water .... ☐ 04
Construction .... ☐ 05
Wholesale, Retail & Trade .... ☐ 06
Transport & Storage .... ☐ 07
Communication/Information Technology .... ☐ 08
Finance, Property & Business Services .... ☐ 09
Public Administration & Defence .... ☐ 10
Community Services .... ☐ 11
Recreation, Personal & Other Services .... ☐ 12

2 How many people does your firm employ? What is their employment status?
(Please write the number of people you employ in the boxes provided.)

	Number of Employees	Employment Status		
		Full time	Part time	Casual
Female	☐☐☐☐	☐☐☐☐	☐☐☐☐	☐☐☐☐
Male	☐☐☐☐	☐☐☐☐	☐☐☐☐	☐☐☐☐
TOTAL	☐☐☐☐	☐☐☐☐	☐☐☐☐	☐☐☐☐

3 Do you employ any persons who have *fully completed* any of the following courses?
(Please tick one box for each course and write the number of persons you employ with these qualifications in the boxes provided.)

			Number of Employees	
Course Name	Yes	No	Female	Male
Diploma in Hospitality Management (TAFE)	☐	☐	☐☐☐☐	☐☐☐☐
Advanced Certificate in Hospitality (TAFE)	☐	☐	☐☐☐☐	☐☐☐☐

4 Do you employ any persons who *are currently studying* any of the following courses?
(Please tick one box for each course and write the number of persons you employ with these qualifications in the boxes provided.)

			Number of Employees	
Course name	Yes	No	Female	Male
Diploma in Hospitality Management (TAFE)	☐	☐	☐☐☐☐	☐☐☐☐
University Hospitality Management Courses	☐	☐	☐☐☐☐	☐☐☐☐

B TRAINING IN HOSPITALITY

5 What TAFE service(s) has your company used?
(Please tick the appropriate box(es).)

	Yes	No
Training provided at a TAFE College through existing courses	☐ 1	☐ 2
Training provided at the Workplace by TAFE staff	☐ 1	☐ 2
TAFE Consultancy (e.g.) Skills analysis project	☐ 1	☐ 2
Tailored training program by TAFE	☐ 1	☐ 2

6 How well informed are you about the following TAFE courses?
(Please tick one box for each course.)

	Well Informed	Partly Informed	Not Informed
Diploma in Hospitality Management	☐ 1	☐ 2	☐ 3
Certificate in Advanced Hospitality	☐ 1	☐ 2	☐ 3
Hotel and Catering Operations Certificate	☐ 1	☐ 2	☐ 3

7 From your knowledge of the course, do you think the TAFE *Diploma in Hospitality Management* adequately equips students for a hospitality management position in your organisation (i.e. provides *appropriately detailed* knowledge of required subject areas)?
(Please tick one box only.)

Excellent subject knowledge .... ☐ 1
Good subject knowledge .... ☐ 2
Reasonable subject knowledge .... ☐ 3
Poor subject knowledge .... ☐ 4

8 Do you feel the TAFE *Diploma in Hospitality Management* is appropriate to the needs of your industry (e.g. is training needed in *additional* areas to meet your industry's needs)?
(Please tick one box only.)

Yes.......... ☐ 1
No.......... ☐ 2

Comments:______________________________

____

9 Does your organisation have a preference towards shorter, more specific courses on topics of interest to your organisation, or the present broad-based TAFE Diploma course?
(Please tick one box only.)

Short courses.......... ☐ 1
Diploma courses.......... ☐ 2

Comments:______________________________

____

10 How well accepted is the Diploma in Hospitality Management course in your industry by comparison with University Degree courses in hospitality management?
(Please tick one box only.)

Well Accepted	Partly Accepted	Not Accepted
☐ 1	☐ 2	☐ 3

Comments:______________________________

11 **When recruiting or promoting hospitality management staff, do you actively seek people holding a Diploma in Hospitality Management?** **4**
(Please tick one box only.)

Yes.. ☐ 1

No... ☐ 2

Comments:______________________________________

____

12 Would you consider using TAFE to train your hospitality management staff in the future?
(Please tick one box only.)

Yes.. ☐ 1

No... ☐ 2

Comments:______________________________________

____

13 Is the Diploma in Hospitality Management recognised in occupational definitions in the industrial award(s) your organisation operates under?
(Please tick one box only.)

Yes.. ☐ 1

No... ☐ 2

Not Applicable.. ☐ 3

Comments:______________________________________

____

14 Is experience learnt on the job *more important or less important* when choosing a potential job candidate (or in promoting people within your organisation) than their educational qualifications?
(Please tick one box only.)

More important.. ☐ 1

Less important.. ☐ 2

Comments:______________________________________

____

Thank you for completing this questionnaire. Please return it to the TAFE National Centre for Research and Development Ltd at 252 Kensington Road Leabrook SA 5068 in the reply-paid envelope by 27 March 1992.

Appendix 5

TAFE NATIONAL CENTRE FOR RESEARCH & DEVELOPMENT LTD

(A.C.N. 007 967 311)

SURVEY OF TAFE GRADUATES - ACCOUNTANCY

We are seeking your assistance in this survey of people who have completed a TAFE Associate Diploma or Diploma Course in South Australia. We would appreciate you taking a few minutes of your time to complete this questionnaire and return it to us by Friday 17th April 1992 to the TAFE National Centre for Research and Development Ltd at 252 Kensington Road Leabrook 5068 in the enclosed reply paid envelope.

The purpose of this survey is to determine whether there is a specific and identifiable labour market available for people who have completed DETAFE Associate Diploma or Diploma courses. The information collected in this survey will be held in the strictest confidence. Names will not be recorded against any responses. This survey is supported by the National Institute of Accountants.

To answer the questions, please place a tick in the appropriate box, or write your response in the space provided. Thank you very much for your cooperation. If you would like any further information, please call Janine Cesnich from the TAFE National Centre for Research and Development on (08) 332 7822.

A. ABOUT YOU

1 Have you completed a TAFE Associate Diploma in Accounting?
(Please tick one box only.)

Yes .... ☐ 1

No .... ☐ 2

If 'yes', please continue with question 2

If No, please do not complete any more questions but return this questionnaire in the envelope provided.

2 What is your sex?
(Please tick one box only.)

Male .... ☐ 1

Female .... ☐ 2

3 How old are you?
(Please write the number of years in the double box.) .... ☐☐

4 What level of secondary school did you complete?
(Please tick one box only.)

Less than year 10 .... ☐ 1

Year 10 .... ☐ 2

Year 11 .... ☐ 3

Year 12 .... ☐ 4

5 Do you consider you belong to any of the following groups?
(Please tick the appropriate box(es).)

	Yes	No
Are you of Aboriginal or Torres Strait Islander descent	☐ 1	☐ 2
Are you from a non-English speaking background	☐ 1	☐ 2

12 Do you work on a full-time, part-time or casual basis?
(Please tick one box only.)

Full-time ☐ 1
Part-time ☐ 2
Casual ☐ 3

13 What occupation below do you consider best describes your present job?
(Please tick one box only.)

Manager/Administrator ☐ 1
Professional ☐ 2
Para-professional (ie, assisting professionals) ☐ 3
Tradesperson ☐ 4
Clerk ☐ 5
Salesperson ☐ 6
Plant & machine operator or driver ☐ 7
Labourer ☐ 8

14 Which industry do you consider yourself to be employed in?
(Please tick one box only.)

Agriculture ☐ 1
Mining ☐ 2
Manufacturing ☐ 3
Electricity, Gas & Water ☐ 4
Construction ☐ 5
Wholesale, Retail & Trade ☐ 6
Transport and Storage ☐ 7
Communication/information technology ☐ 8
Finance, Property & Business Services ☐ 9
Public Administration & Defence ☐ 10
Community Services ☐ 11
Recreation, Personal & Other Services ☐ 12

15 Did you get your present job *after* commencing your Associate Diploma course?
(Please tick one box only.)

Yes ☐ 1
No ☐ 2

B. ABOUT YOUR TAFE COURSE

6 When did you complete your TAFE Course? ____________________

7 How did you attend TAFE?
(Please tick one box only.)

Studying wholly or mainly full-time ☐ 1
Studying wholly or mainly part-time ☐ 2
Studying by correspondence/external mode ☐ 3

8 What were your reasons for doing this course?
(Please rank by number in order of importance.)

To get a job ☐
Requirement of my job ☐
To get a better job or promotion ☐
To get extra skills for my present job ☐
To try for a different career ☐
To get into another course ☐
Other (please specify) ____________________ ☐

9 i) Do you intend to undertake any further study?
(Please tick one box only.)

Yes ☐ 1
No ☐ 2

ii) If you answered yes to the above, where do you intend to study?
(Please tick one box only.)

TAFE ☐ 1
University ☐ 2
Other (please specify) ____________________ ☐ 3

10 In what subject area do you intend to study?
(Please tick one box only.)

Accounting ☐ 1
Non-Accounting ☐ 2

C. ABOUT YOUR CURRENT JOB

11 Are you currently in paid employment?
(Please tick one box only.)

Yes ☐ 1
No ☐ 2

If you answered 'Yes' to Question 11, please do question 12; otherwise go to Question 20.

16 How helpful were your studies in getting this job?
(Please tick one box only.)

Essential, I would not have got the job without it.................. ☐ 1

Very helpful, but it was not essential.................................... ☐ 2

It helped a bit.. ☐ 3

It made no difference... ☐ 4

17 Is your Associate Diploma recognised in the industrial award under which you are employed?
(Please tick one box only.)

Yes.. ☐ 1

No... ☐ 2

Not applicable.. ☐ 3

Don't know.. ☐ 4

18 How relevant are your TAFE accounting studies to your present job?
(Please tick one box only.)

Highly relevant... ☐ 1

Some relevance... ☐ 2

Very little relevance... ☐ 3

Not relevant at all.. ☐ 4

19 How much do you *use* the knowledge gained from your course in your present job?
(Please tick one box only.)

75-100% .... ☐ 1

50-75%... ☐ 2

25-50%... ☐ 3

0-25%... ☐ 4

20. If you *aren't* currently in paid employment, are you:
(Please tick one box only.)

Unemployed?... ☐ 1

Studying?.. ☐ 2

Unemployed/Studying?... ☐ 3

OPTIONAL:

This questionnaire is of course confidential. However, in some cases TAFE staff may wish to follow up your comments. It would be helpful, therefore, if you could provide some contact details.

Your name:______________________________ Phone number:______________

Preferred contact time/date:_______________________________________

Thank you for completing this questionnaire. Please return it to the TAFE National Centre in the reply-paid envelope by Friday 17th April.

TAFE NATIONAL CENTRE FOR RESEARCH & DEVELOPMENT LTD

(A.C.N. 007 967 311)

SURVEY OF TAFE GRADUATES - MECHANICAL ENGINEERING

We are seeking your assistance in this survey of people who have completed a TAFE Associate Diploma or Diploma Course in South Australia. We would appreciate you taking a few minutes of your time to complete this questionnaire and return it to us by Friday 17th April 1992 to the TAFE National Centre for Research and Development Ltd at 252 Kensington Road Leabrook 5068 in the enclosed reply paid envelope.

The purpose of this survey is to determine whether there is a specific and identifiable labour market available for people who have completed DETAFE Associate Diploma or Diploma courses. The information collected in this survey will be held in the strictest confidence. Names will not be recorded against any responses.

To answer the questions, please place a tick in the appropriate box, or write your response in the space provided. Thank you very much for your cooperation. If you would like any further information, please call Janine Cesnich from the TAFE National Centre for Research and Development on (08) 332 7822.

A. ABOUT YOU

1 Have you completed a TAFE Associate Diploma in Mechanical Engineering?
(Please tick one box only.)

Yes.. ☐ 1

No... ☐ 2

If 'yes', please continue with question 2

If No, please do not complete any more questions but return this questionnaire in the envelope provided.

2 What is your sex?
(Please tick one box only.)

Male.. ☐ 1

Female.. ☐ 2

3 How old are you?
(Please write the number of years in the double box.)............................ ☐☐

4 What level of secondary school did you complete?
(Please tick one box only.)

Less than year 10.. ☐ 1

Year 10... ☐ 2

Year 11... ☐ 3

Year 12... ☐ 4

5 Do you consider you belong to any of the following groups?
(Please tick the appropriate box(es).)

	Yes	No
Are you of Aboriginal or Torres Strait Islander descent.......................	☐ 1	☐ 2
Are you from a non-English speaking background.............................	☐ 1	☐ 2

B. ABOUT YOUR TAFE COURSE

6 When did you complete your TAFE Course? ____________________

7 How did you attend TAFE?
(Please tick one box only.)

Studying wholly or mainly full-time.. ☐ 1
Studying wholly or mainly part-time.. ☐ 2
Studying by correspondence/external mode........................... ☐ 3

8 What were your reasons for doing this course?
(Please rank by number in order of importance.)

To get a job.. ☐
Requirement of my job... ☐
To get a better job or promotion.. ☐
To get extra skills for my present job..................................... ☐
To try for a different career.. ☐
To get into another course... ☐
Other (please specify)____________________ ☐

9 i) Do you intend to undertake any further study?
(Please tick one box only.)

Yes... ☐ 1
No... ☐ 2

ii) If you answered yes to the above, where do you intend to study?
(Please tick one box only.)

TAFE... ☐ 1
University.. ☐ 2
Other (please specify)____________________ ☐ 3

10 In what subject area do you intend to study?
(Please tick one box only.)

Mechanical Engineering.. ☐ 1
Other.. ☐ 2

C. ABOUT YOUR CURRENT JOB

11 Are you currently in paid employment?
(Please tick one box only.)

Yes... ☐ 1
No... ☐ 2

If you answered 'Yes' to Question 11, please do question 12; otherwise go to Question 20.

12 Do you work on a full-time, part-time or casual basis?
(Please tick one box only.)

Full-time	☐	1
Part-time	☐	2
Casual	☐	3

13 What occupation below do you consider best describes your present job?
(Please tick one box only.)

Manager/Administrator	☐	1
Professional	☐	2
Para-professional (ie, assisting professionals)	☐	3
Tradesperson	☐	4
Clerk	☐	5
Salesperson	☐	6
Plant & machine operator or driver	☐	7
Labourer	☐	8

14 Which industry do you consider yourself to be employed in?
(Please tick one box only.)

Agriculture	☐	1
Mining	☐	2
Manufacturing	☐	3
Electricity, Gas & Water	☐	4
Construction	☐	5
Wholesale, Retail & Trade	☐	6
Transport and Storage	☐	7
Communication/information technology	☐	8
Finance, Property & Business Services	☐	9
Public Administration & Defence	☐	10
Community Services	☐	11
Recreation, Personal & Other Services	☐	12

15 Did you get your present job *after* commencing your Associate Diploma course?
(Please tick one box only.)

Yes	☐	1
No	☐	2

16 How helpful were your studies in getting this job?
(Please tick one box only.)

Essential, I would not have got the job without it ☐ 1
Very helpful, but it was not essential ☐ 2
It helped a bit ☐ 3
It made no difference ☐ 4

17 Is your Associate Diploma recognised in the industrial award under which you are employed?
(Please tick one box only.)

Yes ☐ 1
No ☐ 2
Not applicable ☐ 3
Don't know ☐ 4

18 How relevant are your TAFE studies to your present job?
(Please tick one box only.)

Highly relevant ☐ 1
Some relevance ☐ 2
Very little relevance ☐ 3
Not relevant at all ☐ 4

19 How much do you *use* the knowledge gained from your course in your present job?
(Please tick one box only.)

75-100% ☐ 1
50-75% ☐ 2
25-50% ☐ 3
0-25% ☐ 4

20. If you *aren't* currently in paid employment, are you:
(Please tick one box only.)

Unemployed? ☐ 1
Studying? ☐ 2
Unemployed/Studying? ☐ 3

OPTIONAL:

This questionnaire is of course confidential. However, in some cases TAFE staff may wish to follow up your comments. It would be helpful, therefore, if you could provide some contact details.

Your name:__________________________ Phone number:________________

Preferred contact time/date:____________________________________

Thank you for completing this questionnaire. Please return it to the TAFE National Centre in the reply-paid envelope by Friday 17th April.

TAFE NATIONAL CENTRE FOR RESEARCH & DEVELOPMENT LTD

(A.C.N. 007 967 311)

SURVEY OF TAFE GRADUATES - HOSPITALITY

We are seeking your assistance in this survey of people who have completed a TAFE Associate Diploma or Diploma Course in South Australia. We would appreciate you taking a few minutes of your time to complete this questionnaire and return it to us by Friday 17th April 1992 to the TAFE National Centre for Research and Development Ltd at 252 Kensington Road Leabrook 5068 in the enclosed reply paid envelope.

The purpose of this survey is to determine whether there is a specific and identifiable labour market available for people who have completed DETAFE Associate Diploma or Diploma courses. The information collected in this survey will be held in the strictest confidence. Names will not be recorded against any responses. This survey is supported by the Hotels and Hospitality Industry Association.

To answer the questions, please place a tick in the appropriate box, or write your response in the space provided. Thank you very much for your cooperation. If you would like any further information, please call Janine Cesnich from the TAFE National Centre for Research and Development on (08) 332 7822.

A. ABOUT YOU

1 Have you completed the TAFE Diploma in Hospitality Management?
(Please tick one box only.)

Yes.. ☐ 1

No.. ☐ 2

If 'yes', please continue with question 2

If No, please do not complete any more questions but return this questionnaire in the envelope provided.

2 What is your sex?
(Please tick one box only.)

Male.. ☐ 1

Female.. ☐ 2

3 How old are you?
(Please write the number of years in the double box.)........ ☐☐

4 What level of secondary school did you complete?
(Please tick one box only.)

Less than year 10.. ☐ 1

Year 10.. ☐ 2

Year 11.. ☐ 3

Year 12.. ☐ 4

5 Do you consider you belong to any of the following groups?
(Please tick the appropriate box(es).)

	Yes	No
Are you of Aboriginal or Torres Strait Islander descent	☐ 1	☐ 2
Are you from a non-English speaking background	☐ 1	☐ 2

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B. ABOUT YOUR TAFE COURSE

6 When did you complete your TAFE Course? ______________________

7 How did you attend TAFE?
(Please tick one box only.)

Studying wholly or mainly full-time.. ☐ 1
Studying wholly or mainly part-time.. ☐ 2
Studying by correspondence/external mode.. ☐ 3

8 What were your reasons for doing this course?
(Please rank by number in order of importance.)

To get a job.. ☐
Requirement of my job.. ☐
To get a better job or promotion.. ☐
To get extra skills for my present job.. ☐
To try for a different career.. ☐
To get into another course.. ☐
Other (please specify)______________________ ☐

9 i) Do you intend to undertake any further study?
(Please tick one box only.)

Yes.. ☐ 1
No.. ☐ 2

ii) If you answered yes to the above, where do you intend to study?
(Please tick one box only.)

TAFE.. ☐ 1
University.. ☐ 2
Other (please specify)______________________ ☐ 3

10 In what subject area do you intend to study?
(Please tick one box only.)

Hospitality.. ☐ 1
Other.. ☐ 2

C. ABOUT YOUR CURRENT JOB

11 Are you currently in paid employment?
(Please tick one box only.)

Yes.. ☐ 1
No.. ☐ 2

If you answered 'Yes' to Question 11, please do question 12; otherwise go to Question 20.

12 **Do you work on a full-time, part-time or casual basis?**
(Please tick one box only.)

Full-time ☐ 1
Part-time ☐ 2
Casual ☐ 3

13 What occupation below do you consider best describes your present job?
(Please tick one box only.)

Manager/Administrator ☐ 1
Professional ☐ 2
Para-professional (ie, assisting professionals) ☐ 3
Tradesperson ☐ 4
Clerk ☐ 5
Salesperson ☐ 6
Plant & machine operator or driver ☐ 7
Labourer ☐ 8

14 Which industry do you consider yourself to be employed in?
(Please tick one box only.)

Agriculture ☐ 1
Mining ☐ 2
Manufacturing ☐ 3
Electricity, Gas & Water ☐ 4
Construction ☐ 5
Wholesale, Retail & Trade ☐ 6
Transport and Storage ☐ 7
Communication/information technology ☐ 8
Finance, Property & Business Services ☐ 9
Public Administration & Defence ☐ 10
Community Services ☐ 11
Recreation, Personal & Other Services ☐ 12

15 Did you get your present job *after* commencing your Diploma course?
(Please tick one box only.)

Yes ☐ 1
No ☐ 2

16 How helpful were your studies in getting this job?
(Please tick one box only.)

Essential, I would not have got the job without it.................. ☐ 1

Very helpful, but it was not essential.................................... ☐ 2

It helped a bit.. ☐ 3

It made no difference.. ☐ 4

17 Is your Diploma recognised in the industrial award under which you are employed?
(Please tick one box only.)

Yes.. ☐ 1

No... ☐ 2

Not applicable... ☐ 3

Don't know.. ☐ 4

18 How relevant are your TAFE hospitality studies to your present job?
(Please tick one box only.)

Highly relevant.. ☐ 1

Some relevance.. ☐ 2

Very little relevance.. ☐ 3

Not relevant at all.. ☐ 4

19 How much do you *use* the knowledge gained from your course in your present job?
(Please tick one box only.)

75-100% .... ☐ 1

50-75%.. ☐ 2

25-50%.. ☐ 3

0-25%.. ☐ 4

20. If you *aren't* currently in paid employment, are you:
(Please tick one box only.)

Unemployed?.. ☐ 1

Studying?.. ☐ 2

Unemployed/Studying?.. ☐ 3

OPTIONAL:

This questionnaire is of course confidential. However, in some cases TAFE staff may wish to follow up your comments. It would be helpful, therefore, if you could provide some contact details.

Your name:______________________________ Phone number:________________

Preferred contact time/date:______________________________________

Thank you for completing this questionnaire. Please return it to the TAFE National Centre in the reply-paid envelope by Friday 17th April.

TAFE

TAFE NATIONAL CENTRE FOR RESEARCH AND DEVELOPMENT LTD
252 Kensington Road, Leabrook, South Australia 5068, Australia Telephone (08) 332 7822
ACN 007 967 311 Telex AA88713 ABCENT Fax (08) 332 3988

Our Reference: HP81-1/PM:as

12 March 1992

1~
2~
3~
4~
5~

Dear Sir/Madam,

The TAFE National Centre for Research and Development Ltd is carrying out a survey of South Australian firms which employ persons who have completed or are undertaking the Associate Diploma in Accounting offered by the Department of Employment and Technical and Further Education. The TAFE National Centre is conducting the survey on behalf of the South Australian Department of Employment and Technical and Further Education.

The purpose of this survey is to determine whether there is a specific and identifiable labour market for people with middle level TAFE training in Accounting in South Australia (i.e. Associate Diploma level training). The survey will also assist in ensuring that TAFE middle level training for accounting staff is appropriate to your industry's needs.

The survey is supported by the National Institute of Accountants.

Please complete the attached survey questionnaire and return it to the TAFE National Centre for Research and Development in the enclosed reply paid envelope by 27 March 1992. Naturally, any information collected in this survey will be held in the strictest confidence. Names of organisations responding to the survey questionnaire will not be disclosed and survey questionnaires will be destroyed at the completion of the project.

Your assistance is appreciated.

Paul Mills

Paul Mills
Senior Research & Development Officer

TAFE NATIONAL CENTRE FOR RESEARCH AND DEVELOPMENT LTD
252 Kensington Road, Leabrook, South Australia 5068, Australia Telephone (08) 332 7822
A.C.N. 007967311 Telex AA88713 ABCENT Fax (08) 332 3988

Our Reference: HP81-2/PM:as

12 March 1992

1~
2~
3~
4~
5~

Dear Sir/Madam,

The TAFE National Centre for Research and Development Ltd is carrying out a survey of South Australian firms which employ persons who have completed or are undertaking the Diploma in Hospitality Management offered by the Department of Employment and Technical and Further Education. The TAFE National Centre is conducting the survey on behalf of the South Australian Department of Employment and Technical and Further Education.

The purpose of this survey is to determine whether there is a specific and identifiable labour market for people with middle level TAFE training in hospitality in South Australia (i.e. Diploma status). The survey will also assist in ensuring that TAFE middle level training for hospitality staff is appropriate to your industry's needs.

The survey is supported by the Hotels and Hospitality Industry Association.

Please complete the attached survey questionnaire and return it to the TAFE National Centre for Research and Development in the enclosed reply paid envelope by 27 March 1992. Naturally, any information collected in this survey will be held in the strictest confidence. Names of organisations responding to the survey questionnaire will not be disclosed and survey questionnaires will be destroyed at the completion of the project.

Your assistance is appreciated.

Paul Mills

Paul Mills
Senior Research & Development Officer

TAFE

TAFE NATIONAL CENTRE FOR RESEARCH AND DEVELOPMENT LTD.
252 Kensington Road, Leabrook, South Australia 5068, Australia Telephone (08) 332 7822
A.C.N. 007 967 311 Telex AA88713 ABCENT Fax (08) 332 3988

Our Reference: HP81-3/PM:as

12 March 1992

1~
2~
3~
4~
5~

Dear Sir/Madam,

The TAFE National Centre for Research and Development Ltd is carrying out a survey of South Australian firms which employ persons who have completed or are undertaking the Associate Diploma in Mechanical Engineering offered by the Department of Employment and Technical and Further Education. The TAFE National Centre is conducting the survey on behalf of the South Australian Department of Employment and Technical and Further Education.

The purpose of this survey is to determine whether there is a specific and identifiable labour market for people with middle level TAFE training in mechanical engineering in South Australia (i.e. Associate Diploma level training). The survey will also assist in ensuring that TAFE middle level training for mechanical engineering personnel is appropriate to your industry's needs.

Please complete the attached survey questionnaire, and return it to the TAFE National Centre for Research and Development in the enclosed reply paid envelope by 27 March 1992. Naturally, any information collected in this survey will be held in the strictest confidence. Names of organisations responding to the survey questionnaire will not be disclosed and survey questionnaires will be destroyed at the completion of the project.

Your assistance is appreciated.

Paul Mills

Paul Mills
Senior Research & Development Officer

Appendix 6

CASE STUDY DATA ITEMS AND QUESTIONS

Graduates background pre-TAFE

Q 1

i) Were you working before starting your TAFE course?

ii) Where were you working?

iii) How long were you there?

iv) What did you do?

Educational attainment pre-TAFE

Q 2

i) What level of education had you reached before beginning your TAFE course?

- Below year 10.. ☐
- Completed year 10...................................... ☐
- Completed year 11...................................... ☐
- Completed year 12...................................... ☐
- Trade qualification.................................... ☐
- Non-trade certificate.................................. ☐
- Advanced Certificate................................... ☐
- Diploma.. ☐
- Associate Diploma...................................... ☐
- Bachelors' Degree...................................... ☐
- Higher Degree.. ☐
- Other ____

____

ii) In what year did you finish?

Studies post-TAFE

Q 3

i) Have you done any further study since completing your TAFE course?

- University... ☐
- TAFE... ☐
- Inhouse.. ☐
- None... ☐
- Other____

____

ii) *(If so)*, what is the title of the course?

iii) Were you granted status, in the post-TAFE course, for any subjects completed as part of your Diploma/Associate Diploma?

iv) *(If so)*, what were they?

Why did you choose to study further?

Main Reasons for undertaking studies

Q 4

What was the main reason for doing your TAFE course?

- Gain employment.. ☐
- Fulfil Conditions of employment....................... ☐
- Gain promotional opportunities......................... ☐
- Change employment...................................... ☐
- Improve skills used in present job..................... ☐
- Gain entry to further study............................ ☐
- Gain entry to University............................... ☐
- Return to employment................................... ☐
- Other____________________________________

Q 5

Why did you choose to do the Diploma/Associate Diploma rather than another level of study?

What year did you complete your Associate Diploma/Diploma?___________

Nature, size, structure of your employing organisation

Q 6

Do you work in the public or private sector?

- Public... ☐
- Private.. ☐

Q 7

(If private), what is the name of the organisation for whom you work?

(If public), in which department do you work?

Q 8

What does your firm do?

- Agriculture.. ☐
- Mining... ☐
- Manufacturing.. ☐

contd.

Electricity, gas and water ☐
Construction ☐
Wholesale & retail trade ☐
Transport & storage ☐
Communication/information technology ☐
Finance, property & business services ☐
Public administration & defence ☐
Community services ☐
Recreation, personal & other services ☐

Q 9

(*If private*), approximately how many people are employed by the organisation?

(*If public*), approximately how many people are employed in your department?

Q 10

Could you give a brief outline of the structure of the organisation/ department, ie. organisations hierarchy, etc? *(If possible, have respondent draw a diagram of organisational structure.)*

Q 11

Is the organisation state based, national or international?

State ☐
National ☐
International ☐

Position you currently hold within the organisation

Q 12

What position do you hold within the organisation?

Q 13

How long have you held this position?

Assessing whether qualifications contributed to success in obtaining the position

Q 14

i) Was your course of study a pre-requisite or do you feel it helped you at all in obtaining your current position?

ii) In what way did it contribute?

Reporting Structure

Q 15

Going back to your organisations structure, what position does the person to whom you report hold within the structure?

Q 16

What position does the person to whom he/she report hold?

Q 17

How many people work in your area/section?

Q 18

How many report to you, if any?

Activities performed in current position

Q 19

What are the main tasks your position requires you to perform? (*brief outline of job specifications*)

(*Ask if it would be possible to have a hard copy of job specification*)

Assessing whether course of study provides skills required for the position

Q 20

i) Were your TAFE studies relevant to your current position?

ii) In what way were they relevant/not relevant?

Q 21

Did your course of study provide you with or help you develop:

a) the range of skills required in your current position?

which subjects helped you the most?

b) the depth of skill required?

How did it contribute/not contribute?

Contribution of course of study to tasks performed, level of performance & progression

Q 22

Were you already employed in your current position while doing your TAFE course?

(*If so*), would you say that since completing your course:

a) you are now required to perform a wider range of tasks?

Can you briefly outline any specific changes which have resulted?

b) the level of work you are required to perform has in any way changed?

(*If so*), can you give any specific examples of how the Associate Diploma/Diploma has helped you deal with these changes?

c) there was an actual promotion?

(*If so*), what was the nature of the promotion?

d) there was a salary increase as a result of the promotion?

Employer acceptance of qualification

Q 23

i) How well accepted do you think your course of study is by the person to whom you report?

ii) For what reason(s) do you believe it is well accepted/it is not well accepted?

Q 24

i) How well accepted is it by senior management within your organisation?

ii) For what reason(s) do you feel this is so?

Q 25

i) Did you receive any study support from your employer while you were studying?

ii) In what way was assistance provided?

- Employer paid time for TAFE classes & exams.............. ☐
- Classes and exams....................................... ☐
- Payment/part-payment of fees........................... ☐
- Payment/part-payment of books/materials................. ☐

Industrial Awards

Q 26

i) Are you covered by an Industrial Award?

ii) (*If so*), under which particular award are you covered?

iii) Is the Associate Diploma/Diploma formally recognised in the award?

Relative contribution of on-the-job experience/training and study to career progression

Q 27

i) When considering an employees' career progression, would you say that your organisation places greater emphasis on formal qualifications or on-the-job experience/training?

ii) How is this demonstrated?

Career opportunities available within your current organisation

Q 28

i) Are you aware of any further career opportunities that might be available to you within your organisation?

ii) How would your qualification contribute to this, if at all?

Career opportunities available within the industry

Q 29

i) (*Private*) How about career opportunities outside the company you're working for?

ii) Would the opportunity be in any way related to your TAFE course of study?

or

i) (*Public*) How about career opportunities within another department?

ii) Would the opportunity be in any way related to your TAFE course of study?

Whether qualifications have actually assisted or is likely to assist in career progression

Q 30

i) Have you been promoted since you began working for the organisation/department?

ii) Was the promotion in any way associated with your Associate Diploma?

iii) How do you believe this to be so?

Q 31

i) Is your Associate Diploma/Diploma likely to assist with your career progression within your organisation/department?

ii) How? (*can you please give examples of specific position if possible*)

Career Expectations

Q 32

i) Did you have any expectations of what your Associate Diploma/Diploma would help you achieve?

ii) What were these expectations?

iii) To what extent have they been realised?

iv) How have they been realised?

v) What, if any, career expectations do you now have?

vi) How will your Associate Diploma help you achieve them?

Equity Issues

Q 33

i) Does your firm have an equal opportunity policy?

ii) Approximately how many members of management are female?

Appendix 7

Persons Contacted During Development of This Paper

- Mr Doug Strain, Institution of Engineers.
- Mr John Stokes, National Institute of Accountants and Institute of Chartered Accountants
- Mr David Eitzen, National Institute of Accountants
- Ms Mandy Walker, National Institute of Accountants
- Mr Horrie Aspinall, Engineering Employers Association of South Australia.
- Mr Mick Tumbers, State Secretary, South Australia, Metals and Engineering Workers Union.
- Mr Michael Cheers, Training Officer, Hotels and Hospitality Industry Association (South Australian Division).
- Ms Lyndall Vanstone and Mr Langdon Blight, Australian Society of Certified Practicing Accountants.
- Mr. Phil Aungles, Department of Employment, Education and Training, Canberra.
- Ms Margaret Caust, South Australian Department of Labour.
- Mr Richard Collis, Advancement Policy Section, Commonwealth Public Service Commission.
- Mr Paul Sandercock, South Australian Restaurants Association
- Mr Jim Hogan, South Australian Hospitality Industry Training Committee
- Ms C (Max) Adlam, Metals and Engineering Workers Union
- Ms Fiona Ritchie, National Institute of Accountants.

DETAFE Staff

- Alex McFarlane, Head, School of Mechanical Engineering, Regency College of TAFE
- Trevor Bettison, Head, School of Technical Studies, Elizabeth College of TAFE
- Dr Jim Grosvenor, Head, School of Fabrication Engineering, Panorama College of TAFE
- Ian Whyte, Head, School of Hospitality, Regency College of TAFE
- Kelly Reeks, Deputy Head, School of Hospitality, Regency College of TAFE
- Barbara Radcliffe, Acting Senior Lecturer, School of Hospitality, Regency College of TAFE
- Ron Isbell, Senior Lecturer, Accounting, Adelaide College of TAFE

- Hans van Wezel, Senior Lecturer, Accounting, Gilles Plains College of TAFE
- Mark Slatter, Senior Lecturer, Accounting, Kingston College of TAFE
- Ray Edgecombe, Senior Lecturer, Accounting, Elizabeth College of TAFE
- Sandra Webb, Acting Senior Lecturer, Elizabeth College of TAFE
- Grahame Latham, Head, Hotel School, Regency College of TAFE
- Neil Quinn, Executive Director, Engineering Skills Training Board of Victoria

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